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WILLIAM HENRY WELCH

AT EIGHTY

WILLIAM HENRY WELCH

From a drypoint portrait by Alfred Hutty made especially for the celebration of the Eightieth Birthday of Dr. Welch, who received the first impression at the Washington ceremonies. About fifty other impressions were presented simultaneously to institutions in many countries.

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WILLIAM HENRY WELCH AT EIGHTY

A MEMORIAL RECORD OF CELEBRATIONS
AROUND THE WORLD IN HIS HONOR

EDITED BY VICTOR O. FREEBURG

PUBLISHED FOR THE
COMMITTEE ON THE CELEBRATION OF THE
EIGHTIETH BIRTHDAY OF DOCTOR WILLIAM HENRY WELCH
BY THE MILBANK MEMORIAL FUND, NEW YORK
1930

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FOREWORD

FOR his fine courage and rare ability to pursue truth into its innermost fastness, his broad vision of scientific conquests for the practical benefit of humanity, his warm zeal for discovering and developing the strength of others crusading for health, his charming genius for friendship, and his modesty, marked as his greatness, Doctor William Henry Welch has long been the recipient of cumulating honors and felicitations. When he reached the age of eighty, on April 8, 1930, it was but natural that the legions of his followers, colleagues, personal friends, and unknown admirers should pay their tributes more abundantly than ever before.

Certain associates and friends of Dr. Welch had seen in advance that the occasion of his eightieth birthday would demand some organization for the acclaim which was sure to arise from all sides. An Executive Committee had therefore been formed, its Chairman being Dr. Simon Flexner, Director of the Rockefeller Institute for Medical Research, and its Secretary being John A. Kingsbury, Secretary of the Milbank Memorial Fund.

Professor Albert A. Michelson, of the University of Chicago, accepted the Chairmanship of the General Committee, which was rapidly formed by the Executive Committee. The occasion was further honored when the following eminent men became the Vice Presidents: Baron Shibasaburo Kitasato, Director of the Kitasato Institute, Tokyo; Dr. Fred Neufeld, Director of the Robert Koch Institute, Berlin; Sir George Newman, Chief Medical Officer of the Ministry of Health and Board of Education of Great Britain; Sir Arthur Newsholme, author and educator in the field of public health; Dr. Emil

Roux, Director of the Pasteur Institute, Paris; John D. Rockefeller, Jr., and the Honorable Elihu Root. When President Hoover not only accepted the invitation to speak at the meeting in Washington but also became the Honorary President for the celebration, its high distinction as an event was made possible.

The cooperation of Dr. Welch himself had to be secured, in order to obtain necessary information, and to arrange for his presence at certain of the gatherings. With characteristic modesty he contended that he was merely a figure in the great cause of modern medicine, which had been advanced by many leaders working together. The Committee turned the contention back upon Dr. Welch and induced him to accept the tributes as a representative of that movement.

This book is published as a memorial record, even though necessarily incomplete, of the celebrations in honor of the eightieth birthday of Dr. Welch. While the book is primarily a record of a particular occasion, it contains materials that illustrate the whole career of Dr. Welch and reveal many of the reasons for the profound affection of those for whom and with whom he has worked.

The volume is offered both as another tribute to the distinguished leadership of Dr. Welch and as a means of further inspiration to his followers in a field where new victories are anxiously awaited by the world.

In publishing this volume for the Executive Committee, which served in organizing the celebrations, the Milbank Memorial Fund honors Dr. Welch, who is the Chairman of its Advisory Council, and at the same time aims to perpetuate an ideal in the domain of its principal interest, public health, where, as President Hoover said, "Dr. Welch is our greatest statesman."

JOHN A. KINGSBURY

FOR THE CELEBRATION

HONORARY PRESIDENT, HERBERT HOOVER

HONORARY VICE PRESIDENTS

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Sir Arthur Newsholme John D. Rockefeller, Jr. Elihu Root Emil Roux

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WILLIAM HENRY WELCH

To have stepped, in the prime of life, into a position of acknowledged intellectual leadership in the profession of his choice; to have occupied that position, albeit unconsciously, for those forty years which have seen the most rapid strides in medical progress of all time; to have had such influence in the furtherance of the medical sciences in this country as to turn the tide of students seeking opportunities for higher education from the Old World to the New; to have been as ready in countless unrecorded ways to share his time and thought with those who were inconspicuous as with those who sat in high places; to have been no less universally respected for his great learning than beloved for his personal charm and companionability; to have stood knee-deep in honours unsought and to have remained seemingly unaware of them; to have rounded out with distinction two successive university positions and, with enthusiasm undimmed, to be now well launched on a third which he is no less certain to adorn—

To have done so much, in so many ways, for so many years, and to have aroused no shadow of envy or enmity on the way, betokens not only unselfishness of purpose but that fineness of character which always has been and always will be an inspiration to mankind.

CELEBRATIONS AROUND THE WORLD

A BRIEF ACCOUNT OF THE PRINCIPAL EVENTS

THE focus and the point of radiation for the celebrations around the world in honor of the eightieth birthday of Doctor William Henry Welch, was the meeting in Washington, D.C., on April 8, 1930. Here were assembled sixteen hundred of his friends to see him and to witness the ceremonies in which President Hoover took eminent part. The heralding of the event in the press of America and other nations had turned the attention of a great public to Dr. Welch and those paying distinguished tribute in Washington. Congratulatory messages poured in from friends and other admirers who could not attend. The program, beginning at noon and lasting one hour, was broadcast throughout the country by the two leading broadcasting companies and to distant lands from two short wave stations.

A unique feature in the linking of many celebrations by radio was the simultaneous presentation of drypoint portraits of Dr. Welch to about fifty institutions in which he is especially interested. These portraits were the work of Alfred Hutty, who had been commissioned to make them especially for the occasion.

The ceremonies in Washington were held in Memorial Continental Hall. In the audience were official delegations from the War and Navy Departments and from the United States Bureau of the Public Health Service, as well as official representatives from a great number of educational institutions and scientific organizations. Mrs. Hoover graced the occasion by occupying her box. Seated on the platform were President Hoover, accompanied by his military and naval aides, Dr. Welch, and the other three speakers, namely, Dr. Livingston Farrand, President of Cornell University, who presided at the meeting; Dr. Simon Flexner, Director of the Rockefeller Institute for Medical Research, Chairman of the Executive Committee, and John A. Kingsbury,

Secretary of the Milbank Memorial Fund, Secretary of the Executive Committee.

Dr. Farrand delivered the opening address. Dr. Flexner, after expressing an appreciation of the career and personality of Dr. Welch, presented to him, in behalf of the Committee, the first impression of the Hutty etching. He then presented formally by radio to institutions in all parts of the world the etchings which had been sent to them in advance. Following this address Mr. Kingsbury displayed a large collection of scrolls, formal tributes, and personal messages which had arrived for Dr. Welch. After calling attention to the wide range of places from which these tributes came, he read selected passages. President Hoover then delivered his address, a warm tribute to the remarkable character and outstanding accomplishment of Dr. Welch, who responded with rare tact, in stimulating words of reminiscence and prophecy.

Immediately following this meeting Dr. Welch was the guest of honor at a buffet luncheon given by Senator and Mrs. Frederic C. Walcott at their Washington residence.

Two of the celebrations, because they required the presence of Dr. Welch himself, could not be held simultaneously with the Washington meeting. These were the dinner given at the New York Academy of Medicine, on April 4, and the reception of the University Club, at The Alcazar, in Baltimore, on the evening of April 9.

There were one hundred and twenty-nine guests at the Academy of Medicine dinner, all of whom signed the handsome illuminated memorial on vellum which was presented to Dr. Welch during the ceremonies. The speakers were Dr. Samuel W. Lambert, formerly Dean of the College of Physicians and Surgeons, toastmaster; Dr. Theobald Smith, Director Emeritus of the Department of Animal Pathology of the Rockefeller Institute for Medical Research; Dr. C. N. B. Camac, Assistant Professor of Clinical Medicine at the College of Physicians and Surgeons; Dr. James Ewing, Professor of Pathology at Cornell University; Dr. Rufus Cole, Director of the Hospital of the Rocke-

feller Institute, and Dr. Welch. A Hutty etching was presented to the Academy.

The University Club of Baltimore, in connection with its reception for Dr. Welch, its President during fifteen years, hung flags and bunting over the outside of its building. The reception, while being organized, took on proportions which forced the Club Committee to hold it in a public building, The Alcazar. The speakers were Alfred Jenkins Shriver, Chairman of the Special Committee, toastmaster; Governor Albert C. Ritchie, of Maryland; Senator Frederic C. Walcott, of Connecticut; Dr. Simon Flexner; Professor William H. Howell, Director of the Johns Hopkins School of Hygiene and Public Health; Mr. Kingsbury, and Dr. Welch. This Club also received one of the Hutty drypoint portraits.

In Norfolk, Connecticut, the birthplace of Dr. Welch, the Washington program was heard by an assembly in the town library, to which an etching had been presented. On the same day was dedicated a bronze tablet on the house where Dr. Welch was born, placed there by the selectmen of the town and a local committee. Resolutions adopted by these representatives were telegraphed to Dr. Welch.

At Yale University a meeting, with radio reception, was held in the auditorium of the Brady Laboratory. Dr. C.-E. A. Winslow was the principal speaker. Yale's official representative at Washington was Dean Milton C. Winternitz, of the School of Medicine. Teachers and students of the College of Physicians and Surgeons, of Columbia University, heard the program over the radio in the Presbyterian Hospital, connected with the medical school. The program was also heard at the University and Bellevue Hospital Medical College in New York.

The above-named three institutions, being respectively, Dr. Welch's alma mater, the school from which he received his degree of M.D., and the school at which he began his career as a medical teacher, received impressions of the Hutty etching.

At the Rockefeller Institute for Medical Research, New York, which received an etching, the doctors and nurses assembled and heard the broadcasting of the Washington speeches.

Princeton University, the Henry Phipps Institute of the University of Pennsylvania, and Western Reserve University, all three of which received etchings, had radio reception which enabled faculty and students to hear the Washington program. The faculty of the School of Medicine of Vanderbilt University also followed the Washington ceremonies by radio.

At the Minnesota University Medical School, a group of seventeen former students of Dr. Welch, of whom nine are on the Faculty, heard their old master's voice over the radio. At the Stanford University Medical School, which received a drypoint, the assembled Faculty and students heard the Washington program. Later in the day a celebration in honor of Dr. Welch was held, the speakers being Dr. A. L. Fisher and Dr. A. W. Meyer, both former students under him, Dean William Ophüls, Dr. T. K. Gilman, and Dr. Emmet Rixford.

Splendid cooperation with the Committee was given by the American Social Hygiene Association, which stimulated several local celebrations. A meeting at its headquarters in New York, held simultaneously with the Washington ceremonies, was attended by representatives of eight other national organizations. The gathering was addressed briefly by Mrs. Anna Garlin Spencer, the radio program was heard, and the portrait etching formally accepted.

In Portland, Oregon, a luncheon meeting, on April 8, held jointly by the Oregon Social Hygiene Society and the Portland City and County Medical Society was attended by nearly a hundred persons. The speakers were Dr. Richard B. Dillehunt, Dean of the University of Oregon Medical School, and Dr. Norman F. Coleman, President of Reed College.

The Cleveland Social Hygiene Association met in honor of Dr. Welch on April 8. The Missouri Social Hygiene Association and the St. Louis Medical Society held a joint meeting on the same day, at which Dr. Ernest Sachs, of

Washington University, a former student under Dr. Welch, was the principal speaker.

Dean Frank Vinsonhaler, of the University of Arkansas, who attended Dr. Welch's lectures at the Bellevue Hospital Medical College half a century ago, delivered an address at the dinner, on April 8, of the Hot Springs and Garland County Medical Society.

At Cincinnati the Commissioner of Health, Dr. William H. Peters, took the initiative in arranging a luncheon, on April 8, under the joint auspices of the Chamber of Commerce, the Cincinnati Board of Health, the Public Health Federation, the Cincinnati Academy of Medicine, and the College of Medicine of the University of Cincinnati. Dr. Martin H. Fischer, of this college, which received a Hutty drypoint, and Mayor Russell Wilson were the principal speakers. Dr. W. D. Haines presided at the luncheon.

In Los Angeles the Southern California Public Health Association gave a dinner, on April 8, at which an address was delivered by Dr. Andrew Stewart Lobingier, President of the Pacific Coast Surgical Association.

Less formal gatherings in honor of Dr. Welch, and resolutions adopted at meetings, some of which were held after April 8, are referred to in the survey of tributes which is a part of this book.

A special exhibition in honor of Dr. Welch was given at the Library of Congress. Books by him were displayed together with photographs and the Hutty etching which had been presented to the Library. A similar exhibition was arranged by the John Crerar Library in Chicago, also with the etching as a central feature.

Outside of America celebrations in honor of Dr. Welch were held in many countries, both of Europe and the Orient. At the headquarters of the Health Section of the League of Nations, Geneva, which received a Hutty etching, and had sent a formal address to Dr. Welch for the Washington ceremonies, the meeting was presided over by Dr. F. G. Boudreau. At Nyon, Switzerland, Dr. Arnold C. Klebs gave a dinner in his home, which was attended by the follow-

ing guests, who represented nine different countries: Dr. Y. M. Biraud, France; Dr. Boudreau, the United States; Dr. M. Ciuca, Rumania; M. Guillaume Fatio, Switzerland; Dr. A. C. Gaal, Hungary; Dr. T. F. Huang, China; Dr. Hector Mortimer, Great Britain; Dr. M. Pantaleoni, Italy, and Dr. E. Tomanek, Czechoslovakia. Doctors Biraud, Gaal, and Huang are former students in the Johns Hopkins School of Hygiene and Public Health.

In Paris there was a luncheon, on April 8, at the Hotel Crillon, which had been arranged by the Pasteur Institute. Speakers were Professor Albert Calmette, Assistant Director of the Pasteur Institute; Dr. Rupert Blue, of the United States Bureau of the Public Health Service, who represented the American Ambassador, and Professor Selskar M. Gunn, Vice President of the Rockefeller Foundation in Europe, who read an address written by Dr. Alan Gregg, Associate Director for the Medical Sciences at the Rockefeller Foundation in Paris, who was unavoidably absent. An impression of the Hutty drypoint had been sent to the Institute, which participated in the Washington proceedings by presenting a scroll of greetings.

At the London School of Hygiene and Tropical Medicine, to which an etching had also been sent, about two hundred persons, on the afternoon of April 8, attended an illustrated lecture on Dr. Welch by Sir Andrew Balfour, Director of the School. In the audience were members of The Osler Club, London, which met in the evening and elected Dr. Welch a "Friend of The Osler Club."

In Peiping, China, the Peiping Union Medical College gave a dinner on the evening of April 8, which was attended by sixty guests, including Dr. W. W. Yen, ex-Premier of the Chinese Republic, a Trustee of the College. Three large embroidered silk scrolls, prepared for Dr. Welch, were exhibited at the dinner, and later sent to him. Dr. Y. T. Tsur, Chairman of the Board of Trustees, was master of ceremonies. He read an address engrossed in Chinese on gold paper. This was also sent to Dr. Welch. Other speakers were Roger S. Greene, Acting Director of the College, and Dr. Francis R. Dieuaide, Dr. A. Ashley Weech,

and Dr. C. E. Lim, members of the Faculty, all three former students under Dr. Welch. The formal toast, proposed by Dr. Lim, was drunk in Chinese wine. Dr. R. K. S. Lim, of the Faculty, was active in arranging the dinner. This college received one of the Hutty etchings.

The wives of members of the Peiping Union Medical College staff, organized in the club Yi Yu Hui (Club of Productive Friendship), gave a lawn party, on April 8, with about seventy ladies present. Mrs. B. E. Read, describing their part of the celebration, reports that there were American, British, German, Swedish, Korean, and Malayan women in the party, as well as representatives of various parts of China. Each in her own tongue expressed congratulations for Dr. Welch.

In Tokyo, at the Kitasato Institute, a special luncheon, on April 8, was attended by ninety guests. All stood while a formal tribute to Dr. Welch was read. Baron Shibasaburo Kitasato presided, and the other speakers were Professor T. Kitashima, Vice President of the Institute, Professor Charles A. Kofoid, of the University of California, and Dr. Thorvald Madsen, Director of the State Serum Institute, Copenhagen, and President of the Health Committee of the League of Nations. Among the guests was Dr. N. N. Anitschkoff, of the State Institute of Experimental Medicine, Leningrad. Prior to the luncheon the party visited a shrine erected to Robert Koch, under whom Baron Kitasato and Dr. Welch had studied in Germany. The Kitasato Institute received an etching and sent a formal greeting to Dr. Welch.

Institutions not already named which received Hutty drypoints were: The Pathological Society of Great Britain and Ireland, Cambridge, which was represented in Washington by Dr. Howard T. Karsner, Professor of Pathology at Western Reserve University, Cleveland, and by Dr. Theobald Smith, Director Emeritus of the Department of Animal Pathology of the Rockefeller Institute; the Royal College of Physicians, and the Royal Society of Medicine, London, and the Royal College of Physicians of Ireland, Dublin, all of which sent formal greetings to Dr. Welch. Portraits were also sent to the Royal

College of Physicians of Edinburgh, the Ashmolean Museum, in Oxford, and the British Museum.

The German institutions which received etchings were the Reichsgesundheitsamt (Government Health Service), and the Robert Koch Prussian Institute for Infectious Diseases, in Berlin, both of which sent formal greetings to Washington, and the Institute of Medical History, in Leipzig.

Other foreign institutions receiving etchings were the State Serum Institute, in Copenhagen, which sent a congratulatory telegram to Dr. Welch, and the Osler Library of McGill University, Montreal.

American institutions not previously mentioned which received impressions of the drypoint were as follows:

In Washington, D.C.: The Army Medical Library, Carnegie Institution, The National Academy of Sciences, and the U. S. Bureau of the Public Health Service.

In Chicago: The Department of Medicine of the University of Chicago, and the American Medical Association.

In Baltimore: The Medical and Chirurgical Faculty of the State of Maryland, and, at the Johns Hopkins University, the Pathological Laboratory, the President's Office, the School of Hygiene and Public Health, and the William H. Welch Medical Library.

In Boston: The Boston Medical Library and the Harvard University Medical School.

In St. Louis: The School of Medicine of Washington University.

In New York City: The Cornell University Medical School, The Metropolitan Museum of Art, the Milbank Memorial Fund, and the Rockefeller Foundation.

Further details regarding the various celebrations will appear in connection with the speeches and formal greetings here published, and in the survey of tributes, which quotes congratulatory messages from speakers at the celebrations and from officers at the institutions named.

PRESIDENT HOOVER AND DOCTOR WELCH

From a photograph taken at Memorial Continental Hall in Washington, D.C., on April 8, 1930, immediately after the ceremonies in honor of the Eightieth Birthday of Doctor Welch.

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AT THE CEREMONIES IN WASHINGTON

LIVINGSTON FARRAND

Chairman of the Meeting

IT IS a very happy occasion that brings us together, that of celebrating the eightieth birthday of William Henry Welch, but it is a very bewildering task that is offered us even to outline within the space of one hour the great service of that extraordinary man. Certainly it is not for me to attempt to indicate except in one or two points the contributions which Dr. Welch has made.

A great teacher, a constructive educator, a wise counselor, a leader of public opinion—in all these fields of activity he has left his impress.

It was a very happy thing for this country and for the world that Dr. Welch's youth, or rather Dr. Welch's early years, for he has never lost his youth, coincided with those great advances in science which opened the most dramatic period in the history of human thought. And his has been a leadership which has meant much in the application of those discoveries of medical science to which he himself has contributed so well. It has meant so much for the improvement of the conditions of mankind.

There are those who will speak to you and who are far more competent than I to indicate the bearing of Dr. Welch's technical contributions, but I hope I may take just a moment to mention one particular field in which he has played a great rôle, sometimes to him, I fancy, unconsciously—namely, the great field of public health.

Dr. Welch, a pathologist, always the man of science, a great builder of a great medical school in Baltimore which has changed the face of medical education in this country, and to which we all gladly pay tribute, has held throughout his life, a keen interest in affairs. It was quite impossible for him, apparently, not to play his part as citizen as well as leader in his chosen field.

And so we see him in that quiet way of his, as a member of the State Board of Health of Maryland, forging new lines of activity in the days when official administration in that field was both halting and limited. And today we look back to the early steps taken there in Maryland from which we have all drawn inspiration and which we now see followed in all the different commonwealths of the country.

Those who were concerned in the first organization of the great fight against tuberculosis remember very clearly the counsel and the encouragement that Dr. Welch gave and the wise lines of action which he laid out and indicated, lines which have been followed throughout this country and throughout the world.

At the international congresses that have been held, that of Tuberculosis in this city in 1908 and that of Hygiene and Demography, he played an outstanding part, and now at the end of his eighth decade, by common consent and with common acclaim he is to preside at the coming International Congress to be held in Washington in the field of mental hygiene, which presents today perhaps the leading health problem of the world.

This is the perennial youth whose life we celebrate. We thank God we have had him and we thank God we still have him. He has meant more to medical science and its application than any other American.

If we turn from these personal activities to the great events in national and state action for public health and inquire on whose advice important decisions were made, important laws formulated, strategic personnel selected, and particularly if we are able to go behind the scenes and published records and into the private knowledge of when advice was sought and from whom, by those in positions of authority, we find in an astonishing range of activities the same guiding hand, and always modestly concealed.

If we turn to the policies formulated by trustees and custodians of wealth to apply to the betterment of human life in this and other lands, and ask where they found their inspiration and from whom they secured the words of coun-

sel which justified themselves by their perfectly self-evident vision, in an astonishing number of instances the paths lead from New York and other centers to the door of this modest sage of Baltimore.

It is that blend, that combination of scientific achievement, of a broad knowledge of affairs, of an ever-present and sympathetic interest in human welfare which has made him the great counselor in the field of public health, and has made him the great citizen that he is.

If I may be permitted a personal note (it is always a tempting thing to analyze the characteristics of outstanding men), I think there is one trait in Dr. Welch which he shared with his great colleague, Osler, which is peculiarly appealing. It is his constant solicitude for the inconspicuous man who has yet rendered service; his unfailing insistence that in so far as he could bring it about the world should learn of contributions of value and that some measure of the recognition that was their due should come to men of worth. And, Dr. Welch, there are countless numbers who have been your beneficiaries in the days of discouragement that come to all of us who look back with affectionate gratitude to the friendly encouragement that you have given so often and with such open hand.

Ladies and gentlemen, the name and number is legion of those to whom Dr. Welch has been teacher, counselor, guide and friend. The name and number is legion of those who would welcome an opportunity like this to voice their debt and to express their affection and admiration for him. This may not be.

There is one, however, who has had the happy lot of peculiarly close relation with our honored guest, both personally and professionally through many years of common aims and common labor—himself a figure of world distinction in the great field to which Dr. Welch has devoted his life. He speaks with an authority which all will recognize.

AT THE CEREMONIES IN WASHINGTON

SIMON FLEXNER

Chairman of the Executive Committee

AS a pupil, in the words of your chairman, as a beneficiary of Dr. Welch, in honoring whom today on his eightieth birthday we honor ourselves more, may I speak for those almost numberless pupils, direct and indirect, whose scientific and professional lives he has influenced, to pay him the tribute he has so well earned in the more than fifty years of service he has given to medicine in its broadest aspects?

Dr. Welch's career is no accident. Careers such as that which Dr. Welch has followed can, in the nature of things, be no accident. We must remember that he comes from a long and distinguished line of physicians. His father, his father's four brothers and his grandfather were physicians. What chance had he? His profession was arranged long before he imagined it. But the profession which he has essayed has been different from that of his forebears, as the period which his active labors cover differs from that of his forebears.

Like all men who make great careers, he was precocious. Entering Yale at sixteen, he graduated at twenty. He entered medicine after a year's experience as a teacher, but abandoned it very soon because, with a prevision almost unexampled, he discovered that in his generation medicine would be more of a science than it had been in the past. He returned, therefore, to his alma mater and spent a year in the study of science, broadly, comprehensively, intensively acquainting himself especially with chemistry as it was then developing in its early, modern, organic form. Than this there could have been no better preparation for the career that he had mapped out for himself, for he had mapped out for himself a scientific career in medicine, although medicine as taught in those days was clinical rather than experimental.

At a very early time he decided, and against the most alluring temptations which practical life could offer, that he would be a pathologist and not a clinician. One of the contributing influences, it appears, was a small incident. He was the winner of the Seguin prize, offered by the Professor of Neurology at the College of Physicians and Surgeons in New York, where he studied, that prize being an excellent microscope. A microscope, in itself a trifling instrument, to one who means to be a pathologist is an emblem, and such it was to him.

He went abroad to study in Germany, and through a set of happy circumstances was diverted from conventional pathology. He did not go to Berlin, to study with the great pathologist, Virchow, but to the university at Breslau, a much less eminent institution, where he came under the influence of a triumvirate that has not had its equal in another day. He became the pupil of Cohnheim, a great experimental pathologist, and the colleague of Weigert and Ehrlich—two men who have carved their names deeply into the history of the science of pathology.

Upon returning to the United States not only gifted as he was by nature, but trained by these and other happy circumstances which time does not permit me to describe, he was equipped to establish pathology in the United States with a breadth and depth, the equal of that of any other country; and by virtue of the qualities which distinguish him, of personality and ability, he not only accomplished this great purpose, but he accomplished it in such a manner as to be unsurpassed in the whole world, perhaps even to supersede the best that the world up to his period had been able to produce.

Think of all the activities in which he has been engaged, a scientist, an investigator, no one so learned in the history of his science as is he; a teacher of extraordinary capacity for discovering the able student, of a depth of generosity which inspired every able student to do more than his best; an educator who introduced a new era into medical education, not confined wholly to this country but one slowly and surely permeating the educational thought of all

the developed countries of the world; a great citizen in the sense that he has used his knowledge in order to bring the results of science to mankind and to apply them for its benefits.

There is no human being in this country who is not his debtor, many millions more than have ever heard his name. If we go into history, there are few personalities that can be compared with the personality of our distinguished guest. You will remember that Francis Bacon in his thirtieth year stated that he would take all knowledge for his province. That seemed a great boast. Dr. Welch today has commanded all knowledge of medicine, and more, as his province. He would not admit this; yet it is true in essence, and the extent of that knowledge today, as compared with that existing in the seventeenth century, is such that no real comparison can be made.

There is one great historical figure in the Renaissance with whom perhaps it is not only permissible, but possible to compare Dr. Welch, and that figure is Leonardo da Vinci, a man whose interests in theoretical science and whose pioneer contributions to practical mechanics and other branches of applied science, whose interest in the arts, surpass those of anyone before him or anyone since his time. One must go back to that individual to get a measure with which to compare our great, distinguished guest of today.

And now, ladies and gentlemen, I have the great privilege of presenting to Dr. Welch the first impression of an etching by a distinguished artist, Mr. Hutty, made very recently from sittings; and in presenting this first copy to Dr. Welch, I am at the same time presenting formally some fifty other copies to outstanding scientific and educational institutions of the world.

Among those to which it is being presented are the Health Section of the League of Nations, the London School of Hygiene and Tropical Medicine, the Royal College of Physicians of Edinburgh, the Royal College of Physicians of Ireland, the Pasteur Institute in Paris, the Robert Koch Institute in Berlin, the State Serum Institute in Copenhagen, the Peiping Union Medical College in Peiping, the Kitasato Institute in Tokyo, and the Osler Library of McGill

SOCIÉTÉ DES NATIONS GENEVA LEAGUE OF NATIONS

27TH MARCH, 1930

DEAR DOCTOR WELCH,

On the occasion of your eightieth birthday, permit us to offer you our warmest congratulations and best wishes on behalf of the Health Organisation of the League of Nations with which you have been associated, as well as on our own account.

We recall with gratitude the friendship which you displayed to the Health Organisation from the beginning, and the many occasions on which we have had reason to thank you for wise counsel, loyal support and friendly collaboration.

If we recall to your memory the last session of a League Commission in which you participated, at Budapest in 1927, it is only to remind you that we hope to have you with us more frequently in the future.

The recognition by those who drafted the Covenant of the League of Nations that preventive medicine formed a fit subject for international cooperation, was in part at least due to the time and energy you have given freely during so many years of your life to the development of this subject.

It must be a real source of gratification to you to see springing up in so many countries, official and private health agencies, animated by the desire to prevent sickness and to prolong life, and inspired by principles which you have done so much to establish.

Students who have received their inspiration from you are in many cases responsible for the initiation of these agencies, and your name is held in affection and esteem by all disciples of hygiene.

Preventive medicine is only one of the fields you have helped to explore and broaden; others include medical education, public health training and the history of medicine, not to mention such special subjects as bacteriology and pathology.

It is no cause of surprise to those of us who have been privileged to associate with you, that your name is held in respect and affection by more than one generation of physicians, and we rejoice that your reputation has not been limited by professional nor geographical bounds.

We deeply regret that distance and the demands of our work prevent us from sharing with our colleagues the pleasure of conveying to you personally our warmest congratulations and best wishes on this occasion.

Yours very sincerely,

(*Signed*) TH. MADSEN
President of the Health Committee

(*Signed*) LUDWIK RAJCHMAN
Medical Director

University in Montreal. There is not time for me to read to you the entire list.

In conclusion may I say that in the great honor which has been conferred upon me in permitting me to speak for the students of Dr. Welch, for those who have profited from him more than any expression of gratitude can ever suffice to express, I have been honored far beyond my deserts.

The Chairman presents

Mr. Kingsbury

LADIES and Gentlemen, there have been spontaneous words of tribute that have come in these last hours from all over the world, words of congratulation to Dr. Welch. It may interest you to know that at this very hour there are being held simultaneously in all parts of the world meetings in honor of this same event. Just as we were entering this hall I was informed that a cable had been received from Tokyo saying that a meeting was being held there at this hour, and they are all listening in on this modern radio contrivance of which we are at the moment the victims.

I was also told that the meeting in Tokyo being held at this hour is, at the same time, at nine o'clock tomorrow morning. Far be it from me to attempt to explain to this audience the mysteries of longitude. Dr. Welch, no doubt, will explain it with entire lucidity, but it is thrilling to know that the world is participating with us and gladly, in this hour.

I have asked the man who has really made it possible for us to come together here today—made those arrangements which are so complicated under all the circumstances, to report to you briefly some of these messages which have been received. I present to you the very efficient Director of the Milbank Memorial Fund, Mr. John A. Kingsbury, of New York.

AT THE CEREMONIES IN WASHINGTON

JOHN A. KINGSBURY

Secretary of the Executive Committee

IN behalf of the Committee, it is my privilege to present to you, sir, the affectionate greetings received from a host of friends, and congratulatory addresses from universities and other institutions of learning in many lands, to which you have added lustre during your long and distinguished career. I present them, sir, but, for obvious reasons, I cannot read them. They are here. They are there on the table. They are still coming in through the air and under the ground and beneath the sea.

There are, however, a few brief messages that I am sure this audience will wish to hear, this audience here and this audience everywhere.

First, from the League of Nations, the Health Organization, just one paragraph: "The recognition by those who drafted the Covenant of the League of Nations that preventive medicine formed a fit subject for international cooperation was in large part due to the time and energy you have given freely during so many years of your life to the development of this subject.

"It must be a real source of gratification to you to see springing up in so many countries official and private health agencies animated by the desire to prevent sickness and to prolong life, and inspired by principles which you have done so much to establish."

Here is a cablegram of felicitations and admiration from the State Serum Institute in Copenhagen. From the Ministry of Health in Great Britain comes a letter signed by Sir George Newman. He pays tribute to "the chief representative of progressive Preventive Medicine on the American continent," and continues: "We regret that the sea lies between us, or we should turn up in full and representative force to acclaim the great and good man whom you honour on our behalf as well as your own."

Here is a scroll bearing the seal of the Royal College of Physicians of Ireland. "We claim the result of your work as a part of our heritage," it says, "which has won for you our respect and homage." The Royal Society of Medicine in London sends a scroll which refers to the fact that Dr. Welch accepted election as an Honorary Fellow twenty-five years ago. It greets him now in behalf of "four thousand five hundred Fellows, Members and Associates throughout the world." A passage reads: "Your work, sir, is enduring and you have already the knowledge that many worthy pupils are following faithfully the paths along which your genius has directed them."

Here is an illuminated greeting from the Robert Koch Prussian Institute for Infectious Diseases, in Berlin, where I believe, sir, you got a large part of your inspiration and early education. I take pleasure in exhibiting this to your friends. As translated the greeting reads: "The 'Robert Koch' Institute sends heartiest congratulations on this day to one of Robert Koch's oldest pupils, Dr. William Welch, successful scientist, teacher, organizer of science, and intermediary between German and American research."

Dr. Farrand has already called your attention to the message from Tokyo. It is signed by Baron Kitasato, of the Kitasato Institute for Infectious Diseases, and his associates, Professor Kitashima and Professor Hata. The message reads: "Please accept hearty greetings from Tokyo sitting in concurrent international celebration of eightieth birthday of Dr. Welch." Here is a greeting from one hundred thousand American physicians organized in the American Medical Association; and here, sir, last but not least, is the scroll from the Pasteur Institute, where they are now holding a celebration. Let me quote two or three passages from a translation:

"For more than half a century, you have devoted your activity, your energy and your splendid intelligence to the service of Science and of your great country. Your position as the most prominent bacteriologist in the United States is and has long been unchallenged. In your youth, after your first visit to Germany, England and France, you brought to your country a flame from

the torch lighted by Pasteur, Lister and Robert Koch. You have made of this flame a center of light and strength. It is at your school, the Johns Hopkins University, that the best of our American colleagues in the fields of bacteriology and hygiene have been educated. Well may you be proud of your pupils, as they are justly proud of their Master.

"As we participate heartily in your Jubilee we desire to recall what you did for us all during the cruel and glorious years of trial. You extended to us a brotherly hand and we felt the beating of your heart. No one of us, no future member of the Pasteur Institute family, can ever forget it.

"You returned to us, and also to Strasbourg, where you were drawn by so many memories of your student days, in order to take part in the celebration of the Pasteur Centenary. You were then the representative both of your Government and of all the scientific institutions of your country and embodied for us the spirit of American science and friendship.

"For the numerous assurances of your sympathetic interest and the cordial esteem which you lavished upon us we are and will ever be most profoundly grateful.

"We ardently hope that we shall have the joy, for many years to come, of honoring and greeting you as one of the most illustrious masters of medical science, as well as one of the great benefactors of Humanity."

You will have the pleasure, sir, of reading, at your leisure, these and many more greetings from all the world.

The Chairman presents

President Hoover

DR. WELCH and all of us are highly privileged in the presence here today of the one person who in his own right speaks with the voice of the American people. Ladies and Gentlemen, the President of the United States.

AT THE CEREMONIES IN WASHINGTON

HERBERT HOOVER

President of the United States

THE many years that I have been honored with Dr. Welch's friendship make it a privilege to join in this day of tribute to him by his friends and by the great scientific societies of our country and of the whole world. Dr. Welch has reached his eightieth year and a whole nation joins in good wishes to him.

Dr. Welch is our greatest statesman in the field of public health, and his public service to the nation well warrants our appreciation of him. With profound knowledge, wide experience and skill in dealing with men, sound judgment and a vision of the future, he has been a great asset to this nation, and we may fortunately hope that he will continue for many years to bless mankind with his invaluable leadership.

Our age is marked by two tendencies, the democratic and the scientific. In Dr. Welch and his work we find an expression of the best in both tendencies. He not only represents the spirit of pure science but constantly sees and seizes opportunities to direct its results into the service of human kind.

Medicine until modern times was a species of dramatic play upon emotions rather than a science made useful through technology. It combined centuries of experience in trial and error in reactions from many drugs, with a maximum of skill on the part of the practitioner in a kindly art of making the patient feel as hopeful and comfortable as possible while he was dying of the disease, the origin and treatment of which was as yet undiscovered. Providence was made responsible for his fate rather than the bacillus which should never have been allowed to infect him.

Modern medical practice, however, is based upon a vast background of scientific research and discovery. In the creation of this science, in the con-

version of its principles into technical methods for use in actual practice, in the diffusion of knowledge of these principles and methods, and in the application of them upon a national and world-wide scale, Dr. Welch has played a leading American part. As a research worker in pure science, he has made original and valuable discoveries. As a technologist he has devised practical methods of applying pure science. As a teacher he has spread true knowledge and inspiration among literally thousands and hundreds of thousands. But in organizing and directing research and application of medical knowledge on a wider field of prevention of disease, he is among the preeminent few who deserve the title of statesman.

No valuable change in everyday practice of any of the great arts has ever been made that was not preceded by the accretion of basic truths through ardent and painstaking research. This sequence that precedes effective action in medicine is equally important in every field of progress in the modern world. It is not the method of stirred public emotions, with its drama of headlines; it is rather the quiet, patient, powerful and sure method of nature herself, of which Dr. Welch has been the master.

Dr. Welch has happily combined in his character and intellect the love of truth and the patient experimental habit of the pure scientist, with the ingenuity of the inventor and the organizing vision and energy of the promoter of sound enterprise—and combines all these things with a worldly wisdom and gracious charm that have made him a leader amongst men.

When we have said all of these things in tribute to his scientific knowledge, his great influence in education and public health, we have one more thing we may say that transcends them all. That is, that he has contributed more than any other American in the relief of suffering and pain in our generation and for all generations to come.

I know that I express the affection of our countrymen and the esteem of his profession in every country when I convey to him their wishes for many years of continued happiness.

AT THE CEREMONIES IN WASHINGTON

The Chairman presents

Doctor Welch

DR. WELCH, your friends have spoken. We are keenly conscious of the inadequacy of language to express the thoughts we have, but, dear friend, we lay our tribute at your feet, and if you find it in your heart to speak to us, any words of yours will be most welcome.

AT THE CEREMONIES IN WASHINGTON

WILLIAM HENRY WELCH

I INTENDED to throw away my manuscript, but I knew I could hardly trust myself to speak without it. I must speak in my own person and not in that of the idealized figure which has been presented to you.

It is quite beyond my power of words to express the thoughts and the feelings of gratitude which this wonderful occasion has aroused in me. Did I accept merely as a personal tribute these words of praise and this manifestation of appreciation and good will marked by this large and distinguished gathering and by meetings elsewhere, I should be overpowered with a sense of unreality depriving me of utterance, but I shall assume, as I feel that I am justified in doing, that by virtue of certain pioneering work and through over a half-century of service, I stand here to represent an army of teachers, investigators, pupils, associates, and colleagues, whose work and contributions during this period have advanced the science and art of medicine and public health to the eminent position which they now hold in this country.

It is, then, in this representative capacity, as well as personally, that, first of all, I express to you, Mr. President, immeasurable gratitude for the distinction which you lend to this occasion by your presence and active participation. You will permit me to add, sir, that your presence and generous words of appreciation have a significance not measured solely by the high office which you hold, for you speak, sir, with the authority of one who has made memorable and outstanding contributions not only to this nation but to the whole world in the field of public health and social service, especially to the most appealing part of this domain, the health and welfare of infants and children.

And to you, President Farrand, and to you, my old friend and pupil, Dr. Flexner, who have spoken here so eloquently, even if in words all too generous

so far as I, personally, am concerned, to Mr. Kingsbury and the other distinguished members of the committees which have arranged this marvellous occasion, to the many citizens, also to the medical officers of the Army, Navy, and Public Health Service, members of my profession here gathered, who honor me by their presence, my debt of gratitude is beyond words to express. If my voice carries to an invisible audience, to personal friends and to other gatherings in honor of my eightieth birthday and what it may symbolize, it conveys appreciation and greetings which come straight from my heart.

While I have been kept in ignorance of the details of these ceremonies, I have been cognizant that the immediate occasion was to be the presentation to me of Mr. Hutty's etching, which, I am sure, in spite of the handicap presented by the subject, he has made a work of art. This I am delighted to accept with gratitude, and I am still more rejoiced that so many selected institutions and organizations with which I have been connected are to receive it.

If it is true, as I have been told, that there are gatherings of friends and colleagues in many places, not only in this country but also in other countries, who are interested in the event here celebrated, I only wish that the time allotted permitted me to tell them—my friends in Germany, whence came my early training and inspiration in pathology and bacteriology, my friends and colleagues in Paris, especially those at the Pasteur Institute, and those in London, Tokyo, Peking, and elsewhere—to tell them how much pleasure and satisfaction and inspiration I have derived from their friendship and association. To the favor and support and cooperation of the members of my profession I owe whatever success I have attained.

No one could have been more favored in his professional career by time and opportunity, and by the good work, achievements and cooperation of pupils, assistants, and associates, than I have been.

Born only three and a half years after the introduction of surgical anaesthesia, I entered upon my professional career in the middle seventies of the

last century, before Lister had really triumphed by the general adoption of the principles of antiseptic surgery and just before the demonstration by Pasteur and by Koch of the causation of infectious diseases by microscopic germs. I returned from Germany, thrilled with enthusiasm, at the dawn of the new era, and with some training and capacity to use that master key forged by pathology and bacteriology, which was to unlock secrets of nature destined to transform the face of modern medicine.

Since that time the fundamental achievement which has made possible the remarkable development of scientific medicine in this country during the last four decades has been the great improvement in medical education, with the accompanying creation of laboratories for instruction and research. So brilliant have been the results in discoveries and their application to the treatment and prevention of disease, that one is likely to lose sight of the foundation upon which the stately superstructure rests.

Only those can realize the magnitude of this achievement who know something of the condition of medical education in this country fifty years ago, when no one dreamed of endowing medical education and research, in contrast with the condition today, when these subjects, together with utilization of opportunities to further and to apply the new knowledge, constitute the most favored and rewarding fields of private and public philanthropy.

I like to think that the primitive little laboratory which I started in 1878 at the Bellevue Hospital Medical College and that of Dr. Prudden, inaugurated almost simultaneously at the College of Physicians and Surgeons, and especially our effort to meet a much larger opportunity, at that time unique in this country, at the Johns Hopkins University and Hospital four decades ago, were not without influence in the improvement of medical education. But the accomplishment would not have acquired the national importance which it has assumed without the participation of other medical schools in the forward movement, the awakening of the medical profession through the American Medical Association and the state licensing boards, and the recognition by the

great foundations, first and most important of all, the General Education Board, of the needs and opportunities of the situation.

If I have handed on any intellectual heritage to pupils, assistants, and associates, whose work and achievements have been the greatest satisfaction and joy of my life, it is derived from that which I received from my own masters. America is now paying the debt which she has owed so long to the Old World by her own active and fruitful participation in scientific discovery and the advancement of the science and art of medicine and sanitation.

The greatest triumphs of modern medicine have been in the prevention of disease, although the physician's power to alleviate and to heal has also been greatly enhanced. It is perhaps not too much to claim that America has taken a position of leadership in the application of the new knowledge to the prevention of disease and to personal and public hygiene.

But, my friends and hearers, it is my inclination, even at fourscore years, to look forward, rather than backward, and to avoid a feeling of self-complacency through the rehearsal of past triumphs. All along the line, in the fields of medical education and research, in the study and treatment of disease and injury, in the preservation and improvement of health and the prevention of disease, so much more remains to be done than has been accomplished, the problems awaiting solution are so numerous and pressing, above all, the better utilization of existing knowledge and the need of more knowledge are so obvious and so urgent that our mental attitude should be far removed from satisfaction with existing conditions.

While public health is the foundation of the happiness and prosperity of the people and its promotion is recognized as an important function of government, how wide is the gap between what is achieved and what might be realized, how inadequate is the understanding of the public concerning the means adapted to secure the best results, how small the attractions offered to those entering or who might desire to enter careers in public health through lack of suitable financial recompense, of security of tenure of office, of oppor-

tunities for promotion, of standards for eligibility based upon special training and experience, and of funds made available for the public promotion of health. Something of the lack of adjustment of the average man to rapidly changing social, economic, and political conditions of our complicated modern civilization may be reflected in a certain temporary maladjustment between curative medicine and preventive medicine, which should stand in harmonious relations.

As my immediate and, doubtless, final professorial interest is on the humanistic side of medicine, I may, in closing, be permitted to emphasize the attractions and importance of studies in the history of medicine and of science. We physicians apply the word "Humanism" to a period and to a spirit which released the mind from thralldom to authority and contributed mightily not merely to the study of antiquity but to the study of nature and of man, leading logically and rapidly to the cultivation of experimental science, between which and humanism as we understand and use the word, there is no incompatibility whatever.

While nothing can be more hazardous than to attempt to predict the directions of future discovery and progress in the biological and medical sciences, it requires no prophetic gift to be confident that with the widening of the boundaries of knowledge will come increased power to relieve human suffering, to control disease, to improve health and thereby add to the sum of human happiness and well-being. Your presence on this occasion and the wide-spread recognition, so conspicuously manifested, of the value of services rendered in the field of medical education and medical science are an encouragement to teachers and workers for which I am profoundly grateful and which accentuates the note of hopefulness which I have endeavored to sound.

FROM THE CHIEF MEDICAL OFFICER OF THE MINISTRY OF HEALTH OF GREAT BRITAIN, ADDRESSED TO THE CHAIRMAN OF THE EXECUTIVE COMMITTEE.

MINISTRY OF HEALTH
WHITEHALL, S. W. 1
28th March, 1930

MY DEAR FLEXNER,

On behalf of the whole Public Health Service in Great Britain, and particularly as representing the medical staff of the Ministry of Health, I desire to send you a word of greeting to Dr. Welch on the occasion of the celebration of his Eightieth Birthday on April 8th. The debt which we all owe him is something which cannot be expressed in words, for his work has not only been an inspiration to us all, but he himself has become to us the chief representative of progressive Preventive Medicine on the American Continent. Moreover, in a strange and wonderful way, his personality has won both our admiration and our affection. We regret that the sea lies between us, or we should turn up in full and representative force to acclaim the great and good man whom you honour on our behalf as well as your own.

With kind regards and all good wishes,

Yours very sincerely,

(*Signed*) GEORGE NEWMAN

SIMON FLEXNER, ESQ., M.D.
49, WALL STREET
NEW YORK

FROM THE PRESIDENT OF THE GOVERNMENT HEALTH SERVICE OF GERMANY, DR. C. HAMEL.

DER PRÄSIDENT
DES REICHSGESUNDHEITSAMTS

BERLIN N.W. 87, *den* 21. *März* 1930
KLOPSTOCKSTR. 18
Fernsprecher: HANSA 4700/03

SEHR VEREHRTER HERR DR. WELCH!

Zu Ihrem bevorstehenden 80. *Geburtstage beehre ich mich, Ihnen zugleich mit meinen persönlichen besten Wünschen auch die besonderen Glückwünsche des deutschen Reichsgesundheitsamts auszusprechen.*

Sie haben sich als Forscher, Organisator und akademischer Lehrer in unermüdlichem Schaffen in Ihrer langjährigen rastlosen und von reichen Erfolgen gekrönten wissenschaftlichen Tätigkeit um die gesamte medizinische Wissenschaft grosse und bleibende Verdienste erworben. Auch Ihre grundlegenden Arbeiten auf bakteriologischem Gebiete, insbesondere über die Ätiologie des Gasödems, haben allenthalben, namentlich aber in Deutschland, das sich Ihnen auch durch Ihre frühere Tätigkeit bei Cohnheim und Robert Koch enger verbunden fühlt, stets grösste Würdigung und Anerkennung gefunden. Ihre organisatorische Arbeit, die für den Ausbau der Johns Hopkins University in Baltimore so Hervorragendes geleistet hat, und Ihre Tätigkeit als Vorsitzender des Aufsichtsrats der Rockefeller-Stiftung und als Präsident der American Medical Association ist ebenfalls nicht nur Ihrem Heimatlande, sondern auch vielen anderen Ländern in segensreicher Weise zugute gekommen.

Den Ihnen dargebrachten Glückwünschen bitte ich den Wunsch anfügen zu dürfen, dass es Ihnen beschieden sein möge, auch weiterhin noch lange Zeit wie bisher zum Wohle der Menschheit und zum Nutzen der Wissenschaft arbeiten und wirken zu können.

Mit dem Ausdruck besonderer Hochschätzung und Verehrung,

Ihr sehr ergebener,

(*Signed*) HAMEL

TEXT OF THE ILLUMINATED MEMORIAL ON VELLUM, BEARING ONE HUNDRED AND TWENTY-NINE SIGNATURES, PRESENTED TO DR. WELCH AT THE NEW YORK ACADEMY OF MEDICINE DINNER, APRIL 4, 1930.

We, the Fellows of The New York Academy of Medicine, and your friends, are assembled here tonight to do you honor because you were a student and teacher in New York and because when you left us to go to Baltimore you never lost sight of your former students and associates and they have never lost sight of you.

Your work as a leader in the teaching of medicine, of public health and of the history of medicine, has been justly recognized throughout the entire United States as well as in Europe and other parts of the world.

We appreciate this, but are met here for something more than the recognition of the eminence which you have gained in the medical profession. We are met here primarily to indicate as well as we may, our esteem, admiration and affection for you, which has steadily increased during the passing of the years.

We therefore deem it a privilege to subscribe our names, with the earnest assurance that we will not forget you and the hope that you will not forget us.

AT THE NEW YORK ACADEMY OF MEDICINE

SAMUEL W. LAMBERT

Formerly Dean of the College of Physicians and Surgeons

TOASTMASTER AT THE DINNER

MY first experience with Dr. Welch was back in 1882. At that time the medical schools of this city were sick. They were drying up. The inheritance from French education was being forgotten and neglected. The teaching methods of Germany had not yet been brought here and put into active use. While the schools were giving nothing but a degree and taking from their students income for the professors and others, the true education and true teaching in this city was being done by young graduates of three and five years' standing organized in what were known as "quizzes." A little group of "quiz" masters lived in the streets about Gramercy Park and Madison Square—Dennis, Hall, Halsted, Hartley and F. Markoe were young unknown surgeons. McBride and West Roosevelt and Thacher were young medical men and Welch was one of that same group. Alphabetically he may have been the last, but he was far from the least, as you know. He had recently been appointed pathologist to the Bellevue school. He was already recognized as a leader and looked upon as a New Yorker with a great future ahead of him and New York in 1884 was shocked to learn that he had accepted a call to Baltimore to become the professor of pathology in the new school being established there. Dr. Welch therefore started as a New Yorker and has been a member of this Academy for many years. He is now one of our honored and Honorary Fellows. From that beginning he has grown to be a citizen of the world. That he resides in Baltimore is only an incident.

AT THE NEW YORK ACADEMY OF MEDICINE

THEOBALD SMITH

Director Emeritus of the Department of Animal Pathology of the Rockefeller Institute for Medical Research

TO describe in a few words the place which belongs to Dr. Welch as a scientific investigator must necessarily degenerate into a gesture. To evaluate any research career in medical science we are governed by both the practical and the theoretical outlook; now one, now the other is dominant.

Unfortunately my early contacts with Dr. Welch were not those of a student nor of a cooperating research worker, but were limited to occasional visits to him in Baltimore when I was working in Washington. These visits I recall with the greatest pleasure. He was nine years my senior, which meant much during the earlier years of our scientific career. These visits fell in the years before the opening of the Hospital and the official opening of the Medical School. Whenever I felt troubled in my work I would find consolation in talking with Dr. Welch. Baltimore had already become a small Mecca for research workers appealing to Dr. Welch for ideas, for advice, for sympathy in their perplexities arising from the revolutionary progress in new fields. This was a time when the younger men were drawn into that maelstrom of bacteriology which was created by the significant discoveries of Koch and his school. Many of you recall the monograph referring to the tubercle bacillus which was published in 1884. Then followed rapidly the discovery of the typhoid bacillus, the diphtheria bacillus, and the cholera vibrio. We were drawn into that current and Dr. Welch was drawn into it as well. To an interest in pathological anatomy and experimental pathology was added that in the bacteriology of infectious diseases. During these early years he was also interested in animal plagues. An extensive work in this field was published only in brief abstract

owing to the increasing external pressure resulting in his being drafted into the service of all new medical undertakings.

My acquaintance with Dr. Welch's researches begins with the bacteriological era. I read every word of what he published during that time and I know of no writings which surpass his in lucidity of style, accuracy of expression, thoroughness of work, and that great judiciousness in which both sides are taken into consideration and the balance drawn.

I also remember Dr. Welch in the early meetings of the Association of American Physicians. He was the one who carried the burden of the discussion. When the discussion flagged he would come to the rescue with some new thought. If he had any criticisms to make, he did not make them directly, but took the side of the one who had read the paper, showed all the good qualities of that paper and gradually came around to the point he had in mind, and the reader hardly knew he had been criticized. It was done so gently and so successfully.

It is said of Buddha that after he had learned all there was to be learned he went into retirement and considered whether to give the world his knowledge or keep it to himself. I know from my own contacts with Dr. Welch that he made up his mind to give his wisdom to the world and that anyone who came to see him for advice in regard to the researches which he was conducting got the best that Dr. Welch had to offer at the time. I am inclined to think that probably not more than one fourth of Dr. Welch's researches have been published. I imagine they were hung up by such things as I have mentioned—by his desire to help everyone that came to him and not only that but his desire to see that the new medicine was going to reach the hearers that should be reached. If you look over his published papers you will note that he has given much valuable time to writing monographs on the early problems of bacteriology. They were models of style and it would be worth while for you to read them again if you can get the time.

Perhaps we might do well to regard our celebration this evening only as one

of those cyclic explosions of enthusiasm which have erupted about Dr. Welch since the twenty-fifth anniversary of his doctorate. This early event was punctuated by a large volume of researches by his pupils, all of which were significant. Today they would form several volumes of some current medical journal to be kept before us. This volume indicates the large amount of research he did by proxy, as it were, in establishing, pruning and fertilizing the new medicine of the past two generations.

Now we are witnessing the migration of Dr. Welch into a new chair far more comprehensive than the "settee" he had given up to his followers. Here synthesis and unification of the numberless medical specialties are needed. Medical history teaches us how they all sprang from the same stock. Today medicine is much like the Tower of Babel. It is stated in Genesis, "The Lord said, 'We shall go down and confuse their language so that they shall not understand one another.'" We are so wrapped up in our technical jargon that we cannot understand one another. Perhaps Dr. Welch may help us in meeting this major disintegrating difficulty.

In looking over some histories recently I was surprised that not a word was mentioned of disease. You may find wars, battles, victories, truces, memorials to great soldiers, but little or no mention of diseases which are woven inextricably into the life and fortunes of nations up to the very present. Think of the darkening effects of the great plagues which have pursued mankind from the earliest recorded history. It is fortunate that we have a chair of medical history and Dr. Welch in it. May many years of activity be in store for him and may he and we be preserved to attend another celebration in his honor in 1940.

AT THE NEW YORK ACADEMY OF MEDICINE

C. N. B. CAMAC

Assistant Professor of Clinical Medicine at the College of Physicians and Surgeons

WERE Dr. Welch a British subject I have no doubt that we would be addressing him as "Lord Baltimore." Titles of this nature being contrary to the customs of America, I address him by that affectionate sobriquet which I have reason to believe he cherishes as highly as his many honorary degrees: "Popsy."

Oliver Wendell Holmes, at the conclusion of his "Over the Tea Cups," refers to the many intrusions upon his privacy, both directly and through the mail. The world had come to feel that he belonged to them. It is in such a position that Dr. Welch has been for some years and it is rumored that when he wishes to be assured of privacy he resorts to his bath, but that even there messages are shouted to him over the transom.

Dr. Williams has invited me to speak of the student's viewpoint regarding the early years at Hopkins.

The group of students to which I belong, was not graduated from the institution in the academic sense. The Hospital was opened in 1889, and interns were needed. Four years later the Medical School was opened, and Instructors and Demonstrators were required. Graduates of other Schools went to Baltimore to serve in these capacities, till sons and *daughters* should have been produced from the loins of the parent University. Many remained long after this event, but it is typical of the Hopkins spirit that we adopted sons, whether we remained or went to other fields, were remembered through the subsequent years, with the same interest as were those graduates who had measured up to Dr. Welch's searching requirements for admission.

We were fortunate to get in by the side door, for Dr. Welch had stated that, by the main entrance, "the requirements for admission were not surpassed in

any medical school in the world." We more than understood Dr. Osler's remark to Dr. Welch, "we are lucky to get in as professors," for, he added, "I am sure neither you nor I could get in as students."

Our group came from the States and Canada. Some of these men were faculty timber from the first; Councilman, for example. He seemed to us to have been dug out of the foundations, for Dr. Welch on his arrival at Baltimore, found Councilman, his tricycle near-by, at work in the pathological building, before the structure was completed.

The other men from the States were Thayer, Finney, Flexner, Abbott, Cushing, Bloodgood, Carter, Livingood, Blumer—I cannot name them all; from Canada there were Lafleur, Barker, McCrae, Futcher, to mention a few only. When some one commented to Dr. Osler upon the efficiency of the men from Canada, he replied: "Oh yes, but the best *remain* in Canada."

We had come from old institutions, which were trammeled with tradition and dead wood and there was the obsession that the success of a medical school was to be gauged by *Quantity*. Yearly reports boasted of the size of the classes, and institutions vied with each other in efforts to attract students. We had been the victims of this mass education, in which the student saw the teacher from the benches of a crowded amphitheater only, or in the "quiz" class, an evidence in itself of the inadequacy of the system of medical education at that time. The size and number of buildings were also criteria of success.

In contrast to all this, Dr. Billings, through articles and pamphlets, was advocating radical changes in the construction and administration of hospitals which were to be an integral part of medical schools. Dr. Welch had outlined an ideal medical school, which seemed Utopian, but which the benefactress of Hopkins, Miss Garrett, fortunately insisted should be adopted without any modification. Dr. Gilman, in his address at the opening of the University, had said, "The glory of the school rests upon the scholars and the teachers brought together and not upon their number, nor upon the buildings constructed for their use."

It was with such men and ideals that this group of graduate students was called to labor and help build.

Twenty-five years later, Dr. Welch, referring to these beginnings, said: "Our whole method of teaching was to a large extent a reaction, which may have seemed almost too sweeping against methods previously existing," and then, going on to describe the method and the results, he says, "There is little didactic teaching. The whole atmosphere of the place has been practical teaching, both in laboratories and wards. All this, however, relates to organization, and to providing opportunity for study. The real results are not there. They are to be sought in the life of the institution, in the men connected with it, and those who have gone out of it. It is seen also, in the spirit of harmony which prevails, in the concession of the right of each individual to develop, and, in the spirit of research . . ."

It is such thoughts that, in reminiscent mood, come to one who saw some of the workings of this fundamental reconstruction of medical education in America, and I believe it to be no exaggeration to say that the future historian will treat this "reaction against methods previously existing" in the same manner as a modern historian (Ornstein) has recently treated the reaction of the famous Italian, French and English Scientific Societies of the seventeenth century, to the didactic scholasticism of the universities of the period.

Mr. Toastmaster, I should like to speak of the opportunity we had of seeing demonstrated, by master minds, the many discoveries in bacteriology, serology, hæmatology, etc., in which the end of the nineteenth century was so rich. Some of these discoveries were made by our teachers and fellow workers and even by undergraduates. I will refer to that of the undergraduates only. MacCallum and Opie, fourth year medical students, demonstrated their biological discovery in the malarial parasite (proteosoma) of the crow's blood, a discovery, the significance of which was immediately appreciated by biologists throughout the world. Here was indeed proof of the soundness of the new system of education. Didactic mass education had nothing comparable to

this in undergraduate work. In this new system, the curriculum was so ordered that the undergraduate had not only time to think, but it was possible for him to engage in scientific research. Here, too, was a school for more than merely transmitting book learning; men were contributing to knowledge and what was more important, men were being developed. To repeat Dr. Welch's expression, there was "the concession of the right of each individual to develop," to which may be added Dr. Osler's dictum: "you cannot get 30 horse-power work out of a 20 horse-power motor, but you can change a 50 horse-power man into one of a hundred or more . . ." It was this latent power, that these masters were arousing to action, and which later they were to send out into American medicine, with the far-reaching effects known to us all.

I should like to speak in detail of Dr. Welch's course in pathology, but I will mention only the opportunity this course afforded us, of seeing the horse-power mutation in operation in the person of Dr. Flexner, who conducted many of Dr. Welch's classes. When we saw him purse his mouth and focus his keen eyes upon us, we knew that he was digging down into his resources and increasing his horse-power; whatever Dr. Flexner's erga may have been originally, by the end of the course he was hitting on all eight cylinders and taking hills on high tension. The subsequent history of this particular instance of man building is well known, but it must be remembered that these results were obtained with material which had not been carefully picked by the Welch entrance requirements. I leave it to you to estimate the credit due the Master Builders in this instance.

That many of those who were graduate products of the Hopkins educational system in its entirety, as well as those of the first group, are to be found today in the office of President or Professor in a large number of institutions throughout the country, is proof that the standard, set by Dr. Welch, is recognized as the ideal to be striven for in the education of the profession in America.

But in the training at Hopkins there was something more than a high grade

curriculum, and this *something* Dr. Welch has described as "an atmosphere, an environment, and ideals which will always be cherished and will continue to be an abiding influence." I will add that these were largely the result of that purpose of our teachers to make us discover every resource within us, and to their scrupulously giving credit to him who did the work. Though the Hopkins system of education has been reproduced by old and new schools, this man building feature has not received the attention it so eminently deserves.

I should like to speak of the gatherings at the autopsies: Welch and Osler and a large group from the pathological department and the wards, in attendance with Flexner, Blumer or Livingood, performing the post mortem. A thorough necropsy, with the taking of bacteriological and histological specimens, was a novelty in those days. With the discussions and demonstrations at these gatherings, our education advanced by leagues.

I should like to refer to the Medical Society, over which Dr. Welch presided for many years and at which he always made remarks which sent us next day to the library with suggestions for reading. Quotations from French, and especially German authors, were copious at these meetings and we soon learned the importance of a "reading knowledge" of these languages as required by Dr. Welch of the candidates for his ideal school.

I should like to speak of our playtime and relaxation—the luncheons and dinners to celebrities who visited the hospital: to be invited to these was an event in our lives. Then there was the baseball team in which Harvey Cushing marked my finger for life with a hot liner to shortstop; there were gatherings at Hontzleman's for pretzels and beer after a longish day, and in the interns' quarters much more noisy parties that brought Dr. Hurd, the Superintendent, in speechless indignation upon us, individually or en masse, and which bowed down the saintly Sister Rachel, the housekeeper, in sorrow at the way of youth.

Time does not allow of indulging further in these reminiscences, but, Mr.

Toastmaster, if I may be permitted to take a moment more, I will ask Dr. Welch to accept a modest token.

This volume* is presented, not because it has intrinsic value, but because it has belonged since 1776 to four generations of North American physicians, graduates of Edinburgh, Glasgow, Harvard, Columbia, and the University of Pennsylvania. It is the work on Hygiene by Hippocrates, done into English in 1734 by Francis Clifton. It contains "The Life of Hippocrates" by Soranus of Ephesus, the portrait bust by Rubens, and "The Account of the Plague at Athens" by Thucydides. It is a *Princeps* listed among the *Prima* in the "Bibliotheca Osleriana" (158). . . . It is presented as literature associated with your newer activities, Hygiene and the History of Medicine.

* I acquired this volume in 1904 at the distribution of the Almon library at Halifax, Nova Scotia.—C. N. B. Camac

AT THE NEW YORK ACADEMY OF MEDICINE

JAMES EWING
Professor of Pathology at Cornell University

IT is quite appropriate that Dr. Welch should celebrate his eightieth birthday in New York City. The Committee of the New York Academy is to be congratulated on arranging this notable occasion. We regret that Dr. Welch has not been able to celebrate any former birthday in this city. We regret especially that no committee has ever been able to devise a method by which great men should be counted upon to celebrate their first birth day in this or any other city. We have long waited for this opportunity, but since these celebrations become more and more significant with each succeeding period, we may claim that this is the most significant of the many anniversaries on which Dr. Welch has loaned himself to his friends for mutual congratulations.

The place is appropriate for many reasons. Particularly because it was in New York that Dr. Welch received his first baptism under the order of Medicine, in the early days of "P. & S.," 1875. No doubt he remembers, as few others here can boast, the strong men of those early days, Alonzo Clark, Willard Parker, Edward Seguin, Francis Delafield, possibly the elder Delafield, while Charles McBurney and William T. Bull were young instructors in anatomy. There in the old building at 23rd Street and Fourth Avenue were gathered more brains than bricks. The old Bellevue also boasted of an equally famous group of men headed by Austin Flint and Alfred Loomis.

All these men must have met in this Academy in its modest building at 12 West 33rd Street. There they presented their papers and their cases. Perhaps our young medical student attended some of these meetings, and thereby gained a sense of responsibility and an ambition, which proved a lasting inspiration. But something drove Welch abroad. Possibly it was one of those

terrible art exhibitions by New York Medical men, featured by the Academy. If so, it gave him a long and famous sojourn with the great pathologists of Europe, which laid upon a high plane the foundations of his career. Returning to New York he established the pathological service at Bellevue Hospital and assiduously applied those precise methods of observation and research that made Germany the leading nation in pathological science.

To be Connecticut born, New York bred, and German trained was an irresistible combination and made Welch the outstanding young pathologist in America. Hence, in 1889, when the Hopkins medical faculty was formed, he was the inevitable choice to head the department of pathology and, as we may well believe, the whole project. With a cosmopolitan generosity, New York loaned Welch to Baltimore for a great undertaking, but New York never relinquished ownership or pride in the transaction.

Of the assets which Welch took to Hopkins, one seems to me outstanding. There probably never was a more broadly trained American physician or one who came into direct contact with so many of the best scholars of that day. It was a fine conception of scholarship that he took to Baltimore and upon this firm foundation the brilliancy of himself and his colleagues shone like a beacon light over American medicine.

Of course there were other American scholars at that time. Fitz in Boston lent distinction to the Harvard group. Prudden in the old "P. & S." laboratory maintained an almost ideal atmosphere of scientific endeavor. Yet, we were all thrilled with a new pleasure at the comprehensive scope and fine finish of the early studies from Hopkins. Particularly impressive was the monograph on malaria by Thayer and Hewetson, followed soon by the elaborate studies on typhoid fever from the Johns Hopkins Hospital. These contributions and some from Halsted and others announced a standard of scholarship which had a strong influence on the whole field of work in American clinics and laboratories. In them we recognize the master hand of Welch. In the field of medical education, while at that time the stage was set for radical improve-

ments, there were no actors until Welch appeared. From his own works it would be hazardous to choose. No one but the author can safely evaluate his own studies. But I have always felt that one of the best was his monographic article, "Cancer of the Stomach," which is a model of completeness of treatment, orderly balance, and finished diction. It should be compulsory reading for any one who undertakes to write on cancer of the stomach. Probably the work on edema would receive a higher rating from the experimentalists but not for scholarship.

It is almost a trite remark and yet worthy of repetition that no great medical project can succeed without the support of great personalities. Together with several very notable colleagues, Welch brought that broad, genial, impressive personality that pervaded all the early activities of Hopkins, attracted many able young men, encouraged in them superlative efforts, strongly influenced many other institutions, and eventually made him the greatly beloved Dean of American Medicine. History abounds in such examples, but this one may never be forgotten in American Medicine, for it is far and away his greatest contribution. In these modern days, especially when medical interests are rapidly taking on a new complexity, this lesson may well be remembered, that in the last analysis, real success depends on personality, that inscrutable quality of dealing with men and affairs, even with Science, by means of the cardinal virtues and according to the golden rule.

In another aspect, but for the same reason, Dr. Welch has been a tower of strength to the idea of the University in American life. When one considers the vast influence for good exerted on society by the University from the Renaissance down to the present time, one must view with alarm any fading of the vision of the University ideal. To any who have feared that in University life in America, expediency might replace judgment or opportunity override wisdom, the presence of Dr. Welch, long maintained in a commanding position, has been a most reassuring sign.

To Dr. Welch himself his most gratifying service must be found in the work and influence of his pupils, many of whom have grown old in service and are familiar to fame. When one considers the great changes that have occurred in American Medicine since 1880, the story must seem like a dream. But, when he recalls that he lived through all of it, witnessed most of it, and by his own labors and those of his pupils contributed much of it, the dream becomes a solid reality.

It is a grand experience to stand on the pinnacle of eighty years of life and service, strong, loyal, triumphant, and review the unfolding of events and the ever widening current of his influence upon them. But it is a sound principle of social philosophy that no one lives unto himself alone. Every one influences his friends and colleagues, near and distant, and becomes a part of their lives. Thus we share with Dr. Welch the joy of the splendid retrospect which opens before him on his eightieth birthday, and we wish him continued health and power as the years roll on.

AT THE NEW YORK ACADEMY OF MEDICINE

RUFUS COLE

Director of the Hospital of the Rockefeller Institute

I HAVE never thought of Dr. Welch as a bibliophile, that is, in the sense in which that word is generally used. He is a friend and lover of books, but I think his affection is more than "skin deep." It is the soul of books, not the outward trappings, that attracts him. A bibliophile is generally thought to be one who values a book chiefly because of its age, its rarity and the beauty of its binding and typography. I cannot imagine Dr. Welch's eyes sparkling over the possession of a book simply because it is old and has original wrappers and uncut pages, which of course are the desiderata of the true bibliophile. But though in that sense he is not a bibliophile he is one of the best friends of books I know, at least one of the closest companions.

My first contact with Dr. Welch in his rôle of a lover of history and books came in the meetings of the Johns Hopkins Hospital Historical Club. Soon after his arrival in Baltimore, as pathologist to the Johns Hopkins Hospital, he organized the club. This was in 1890, three years before the Medical School opened. At the first meeting, there were 30 men present. Dr. Welch was made President, and he then proceeded to exhibit an English translation of the "Regimen Sanitatus" of the School of Salernum, and to comment upon it.

The meetings of the Historical Club exerted a deep and lasting influence on all the students and assistants. They stirred into life a new side of our personalities, the cultivation of which is important, even in those whose chief interest is science. The true scientist requires more than the ability to reason, he needs imagination. As Shelley says—"We want the creative faculty to imagine that which we know, we want the generous impulse to act that which we imagine, we want the poetry of life." There is no better way for the student of medicine to acquire this than by the cultivation of an interest in the origin and development of his own science as shown by the lives and works of its mas-

ters. This and much else of the little I know I learned from Dr. Welch. Not in words and precepts, but through the manifestations of his spirit, invisible yet potent.

One of the most remarkable things about Dr. Welch is his perfect adaptability to all times and places. Like Socrates he is at home everywhere. He is the antithesis of the provincial and chauvinistic. When I lived in Baltimore I felt that he was a Baltimorean. But when I came to New York I found that New York claimed him as well. As President of the Board of Scientific Directors he was the soul of the Rockefeller Institute. Our most distinguished and illustrious members of the medical profession in New York, such as Dr. Delafield, Dr. Janeway, Dr. Prudden and Dr. Jacobi, claimed him as friend and leader, just as did my revered teachers in Baltimore. But not only in the ranks of the medical profession, but also in social life, among business men, wherever I have seen him, in Baltimore, New York, Naples, or London, there he seems to belong. Even as a soldier in the war Dr. Welch seemed not out of place. During the war I went about with him and Dr. Vaughan and Col. Russell visiting the various camps to learn more about the pneumonia prevailing among the soldiers, in the hope that its prevalence might be diminished. I remember our stopping one day at a little station in the South and we all got out to walk up and down the platform. Dr. Welch strode vigorously along, up and down, and of course was the center of interest of all loiterers hanging about the station. Col. Russell and I walking behind him saw two old farmers looking at him with great admiration and interest, and we overheard one of them say to the other, "I'll bet you he's an old war dog." He was an old war dog, but his battle was to save, not to destroy.

The most remarkable thing about Dr. Welch, however, is not his adaptability to place, but in time. I think he would have been as much at home among the Greeks in the Golden Age, or the Elizabethans, as he is in the 20th century. A few years ago I had dinner with Dr. Welch at Dr. Flexner's. When we left he said he was walking down to the University Club and I offered to ac-

company him. For some time I have been interested in 17th century medicine in Italy, and I thought that I might venture to speak of this period without displaying too much ignorance. So I ventured to speak of Athanasius Kircher, that remarkable man, Fellow of the Society of Jesus, who like Dr. Welch, was interested in everything, from the theory of infection to flying machines, but who, unlike Dr. Welch, allowed his power of imagination to gain control over his powers of observation. I had no more than mentioned the name when Dr. Welch was off. He told me about his life, his interests, his associates, his times. It was as though we were talking about one of our Baltimore friends. And when we reached the club it seemed that he was only fairly started. It was almost uncanny.

Then two years ago I was with Dr. Welch in England attending the celebration of the Harvey tercentenary. We were together at a luncheon at Cambridge, and after luncheon Dr. Nuttall, formerly of Baltimore, but now a Fellow of Magdalene College, asked Dr. Welch and Professor Sherrington if they would not like to see Pepys's Library, of which Dr. Nuttall is now one of the custodians. Dr. Welch kindly asked me to go along. As you may know, this library was bequeathed to Magdalene College with the proviso that it must be kept intact, and that if even one book were lost, the library should go to one of the rival colleges. As you may imagine, the library has been kept with scrupulous care, under lock and key, and to visit it is a great privilege. For many years indeed, a committee from another college visited the library each year and carefully counted the books to see that none was missing. It is a perfect 17th century library kept in an old room, in the original cases, just as Pepys arranged and left it. It is surprising to find that he had arranged his books with meticulous care, but not as Dr. Welch would have done. They are arranged not according to subject but to size! If a book were slightly less tall than its companions, Pepys had a small block made with an artificial binding on the back corresponding to that of the book, and that block was placed under the book to raise it to the desired height. Now as soon as we entered the room

Dr. Welch was at home. He took down books from the shelves, talked familiarly about the authors, and of the interests and activities of the times. He talked like a contemporary of Pepys.

As you all know Dr. Welch is now organizing and developing what is to be the great Welch Library of Medical History. Just as he has conducted all of his great undertakings, he is not doing this in the conventional way. This is not to be a mausoleum in which dead books are deposited, but it is to be a laboratory, a workshop, where history can be studied and historical discoveries made. It is to contain not only books but workers. And already Dr. Welch is attracting to himself some of the most productive and learned men in this field. One may be sure that out of it will come most important contributions. Is it not interesting that in this comparatively young and new country of ours, the history of medicine is to develop into a living thing, a new science, to shed new light on the nature of this world of ours.

Two years ago Dr. Welch was abroad collecting books for this library, not necessarily first editions, though he wants them, too, but books about everything relating to medicine. One day in Paris I went with him to an old shop across the Seine. The proprietor, knowing he was coming, had gathered together a great pile of books for him to look over. Among them were many, the relation of which to medicine was at first sight obscure. I remember his handing me an old book on perfumes. Did I think this subject had any relation to medicine? It did not seem very obvious to me, but Dr. Welch soon enlightened me. I found it had many connections. His statements were convincing and the book joined the others to go to Baltimore. After I had left him I remembered a message I wanted to give him and I turned back to join him. I saw him standing all alone before one of the old book stands along the quay on the left bank of the Seine. He was poring over the old books. It was twilight and the setting sun was casting its last rays on the towers of Notre Dame which formed the background. That picture will long remain in my memory and is the best one I have of Dr. Welch as a bibliophile.

AT THE NEW YORK ACADEMY OF MEDICINE

DR. LAMBERT

IT has seemed to the committee who had this dinner in charge appropriate that some tangible means of recognition of our interest should be presented to Dr. Welch and we have selected two books. We wish to present the first English edition, 1640, of Bacon's "Advancement of Learning" to the citizen of the world; and to the philosopher, de la Chambre's little book "The Art How to Know Men," in the first English edition translated by John Davies and published in 1665. It will show Dr. Welch how a predecessor of his viewed a subject similar to one in which he is very active. To the man and Fellow of this Academy, I am pleased to hand Dr. Welch a resolution from his colleagues which has been signed by every person in the room.*

* The text of this resolution appears on page 44.

AT THE NEW YORK ACADEMY OF MEDICINE

WILLIAM HENRY WELCH

(From a stenographer's report)

I THOUGHT when the suggestion was made to me in Baltimore that I should submit to a banquet and I positively declined, that that really was a quietus on that proposition. When I received a telegram from Linsly Williams saying that some of my friends in the New York Academy of Medicine desired to honor me with a banquet I interpreted it as essentially, as has already been expressed, an opportunity to come home to an intimate and almost family gathering. I thought therefore there was no particular opposition between my former and first decision declining an elaborate anniversary banquet and a family dinner at my old home in New York, so without even consulting my calendar and not even noting that I had rather a strenuous day before it, I promptly accepted by telegram to Linsly Williams. I very much appreciate your invitation to come here for this occasion. I have really no words which can express adequately my grateful appreciation. I do regard it, large as the assembly is, as in a measure a family and intimate gathering. I do regard it as a coming home at least to the early scenes of my medical education and beginning of my professional life—scenes which I have cherished all these years and which I hold very dear. I cannot begin to tell you how much I appreciate the presence here of so many who were my friends, not a few my pupils, many my colleagues and associates in their early days, some of them the sons of those who were my colleagues and associates at that time. I can't begin, and I should not endeavor, to call their names, but I can't help expressing my delight that Dr. Pupin has come here tonight, a dear friend and a cherished associate these many years, a townsman in my native town in Connecticut. I was delighted that Henry Fairfield Osborn, who whispered in my ear that there were reasons why he would have to leave early, should be here and I will explain later why I particularly appreciate his coming.

I have listened to these speeches. I appreciate them immensely. If I accepted at its face value all that has been said, I should hardly be able to stand on my feet and speak at all. I don't think I have any great illusions as to my services to medicine and medical education, so little so, that while it is delightful and pleasant to hear these tributes, I am frank to say that I appropriate only a certain fraction to myself. I want to thank Dr. Smith, Dr. Camac, Dr. Cole, and Dr. Ewing, who have spoken with great discrimination, for what they have said. I am glad Dr. Ewing mentioned my dear friends and colleagues, whose names should be mentioned, such as Dr. Prudden. Dr. Cole and I have a number of stories to tell on each other in our experiences on the other side.

Just before I came up here, I was sitting in the library at the University Club reading the Life of Mark Twain. I was reading an account of his speech at a dinner on his seventieth birthday. It was rather a small dinner. I jotted down what he wrote and am inclined to use it. It is rather delightful. It is probably an appropriate attitude of mind for one who has reached three score and ten. "Three score years and ten. It is the scriptural statute of limitations. After that you owe no active duties; for you the strenuous life is over. You are a time-expired man, to use Kipling's phrase, you have served your term, well or less well, and you are mustered out. You have become an honorary member of the republic, you are emancipated, compulsions are not for you, nor any bugle-call but lights out. You pay the time-worn duty bills, or decline, if you prefer—and without prejudice—for they are not legally collectible." I hadn't time to write more, but isn't that delightful? That indicates that ten years ago I ceased the strenuous life. I don't see Dr. Dana here at the moment, but I received from him a number of gifts for a child about ten years of age, some balloons, etc., no doubt based on a correct interpretation that I am in my second childhood. I know I have reached the age of anecdotage.

It was suggested to me that a few reminiscences of my early days here in New York might be appropriate. I would like to say at the beginning that if you have read the autobiography of Lord Haldane (he did not live to revise the

book; it was edited by his sister) you will recall that in the last chapter she says that some colleague asked him whether, if given the knowledge and experience he possessed now, he would care to start over again, live his life again. He deliberated and then said, "No," and the reason he gave was that he couldn't count upon the good fortune which he had had in his life, which was even to him an obviously successful one. So much depends upon chance. I should make the same answer. Could I start over again and expect at eighty years of age to be here at such a gathering of friends? Should I have the opportunities which have been presented to me to which I owe everything? It has been the time, the opportunity, the friendship, the loyalty, the host of pupils and friends and associates, to which I attribute whatever share I may have had in the advancement of scientific medicine and medical education in this country.

Now, one of the great opportunities came to me here in New York. You referred, Mr. Toastmaster, to the rather sickly condition of the medical schools at that time. They were, as you read about them and hear about them, pretty bad, but those of us who studied here in the early seventies were inspired by our teachers with as much enthusiasm as the students are today. That is, is it not, the gift of the teacher, to be able to inspire the student? We looked up, or I did, to my teachers of those days, Alonzo Clark, Sands, Sabine, Dalton, Delafield, T. Gaillard Thomas and all those you have mentioned. The elder Delafield was President of the College when I was a student. I look back to those men with reverence and admiration and feel that I got something. Abraham Flexner thinks it is because of my good nature that I say these things about what we were able to get out of the medical school at that time.

I was singularly fortunate at the very beginning of my medical studies in having John Curtis ask if I cared to be a prosector. That meant going down into the room below the dissecting room with Sabine and J. C. McBurney where I spent days and nights in association with them. McBurney, who had recently returned from Vienna, expected to practice a specialty, laryngology.

That kind of intimate friendly association meant more to me than I could have learned by sitting on the benches listening to lectures.

There was another part of my education which was more unique. I regard myself practically as the graduate of a library, that was almost my alma mater. At that time, the best library in New York City, which is now in part housed in this building, was that of the New York Hospital. The New York Hospital had moved and the building on 15th Street was not opened until 1877 or 1878, but their library was housed in the old Thorne mansion at the rear of the hospital on 16th Street. I used to go in through that dignified gateway, and this extraordinary privilege which I had I owe to Dr. Sabine. He secured from the library, which was almost a deserted mausoleum open an hour or two during the day, the key and gave it to me. I wonder now how a student could have been so trusted. I was given the key and spent days and nights there, often staying until midnight. That was the day in which a prize was offered for the best graduating thesis. Sabine suggested the subject and encouraged me to enter into the competition. I think the education I got reading in that library, German and French, was on the whole a pretty good education. So the results possibly were not quite so bad as they might seem to be from a mere statement on paper of a three years' course, the first with a preceptor, my father, and the other two attending lectures at the college. I can give you but little idea of the atmosphere and spirit of those days and of these young men, who had enthusiasm and zeal, coming in contact with the stimulating and inspiring minds of Sabine, Dalton, McBurney, and John Curtis. I took advantage of the opportunity of competing in the examination for interneship at Bellevue Hospital six months before graduation, thus entering the Hospital in the autumn of 1874. I have always regarded the experience of the hospital intern's acquaintance with disease present in the living patient as a valuable asset to a pathologist.

After that I went abroad and I do feel that my two years in Germany were really what gave me the training and inspiration for what success I may have

had. Others were going abroad and training for specialties. If I had trained myself in some specialty, such as nervous diseases, which were my particular interest, if I had come back trained merely in a specialty, I should not have had the particular kind of an opportunity I had. I chose to train myself in pathology. At that time pathology furnished the master key for the advancement of medical education by the introduction of the laboratory.

That was a very remarkable group that I was associated with for eight months in Breslau. I don't hear of many young men who get quite the stimulus which I received there. I had gone to Strassburg first and then to Leipzig, where Ludwig, the great physiologist, diverted me from Virchow and led me to Cohnheim—Salomonsen and I being his first foreign-born students. No other English speaking students were there at that time. There could be no more inspiring atmosphere. There was Ehrlich, working with aniline dyes, who had already developed the smear method; there were Weigert, Lassar, Lichtheim, Neisser, and Rosenbach. I was taken right into the inner circle, in a way I would not have been anywhere else. I went to their gatherings and picnics and meetings. Now young men don't get, I think, quite the contacts which we had at that time. It was the dawn of Koch's work on anthrax. He came to Breslau and showed us his work. I shall never forget his coming, with Ferdinand Cohn, through the room with Cohnheim. I have often reminded Koch of it. Cohnheim was greatly impressed with the coming bacterial era, which did not fully open until Koch went to the Imperial Health Office in Berlin.

That was the kind of stuff I had in my head when I came back to New York and you can imagine that I was looking for a laboratory. I was a graduate of the College of Physicians and Surgeons, and I had great admiration for Delafield. He said to me, "We would like to have you teach pathology. You could take over my summer courses. If you can find a room in this building which you can use for a laboratory, you are welcome to it." I went over the building from top to bottom, but there was not a nook or a corner to be used. Delafield

said, "I expect to succeed Alonzo Clark in the Chair of Medicine, but as long as I hold it, there will not be an independent Chair of Pathology."

Bellevue Hospital Medical College offered me two rooms and went to some expense to add a connecting room, making three adjoining rooms. That was just what I wanted. There I started in 1878. As I look back, I think Dr. Ewing was correct in saying that this modest start has signified something. I am sorry that Osborn has left the dinner, because I don't think you can get a more striking example of the changes which have come over the opportunities, at least for biological study, especially on the laboratory side, in New York than to note how Henry Fairfield Osborn landed in my laboratory. His father was a very well known man, President of the Illinois Central Road. His mother was active in the introduction of the system of trained nurses at Bellevue. They were delightful, important and influential people. Young Osborn had just graduated from Princeton and they wanted to keep him at home for a year. He had planned to go to work with Huxley. He went all over New York, to Columbia, to New York University, looking for a laboratory. Finally he landed in my primitive quarters in Bellevue. It was the only place where he found an opportunity to pursue his studies in a laboratory; in a way that may have had a limited bearing on his future interest and study. I am delighted that he came here tonight and have been pleased with the reference he has repeatedly made to those early days in his publications. He started a group of Princeton men coming to me. Alexander Dumas Watkins was my colored janitor and later was taken by Libby to Princeton, where he was known to a generation of students. Archibald Alexander spent his evenings going over the anatomy of the brain with me in the laboratory. It was rather an interesting group of extra-mural workers. Some good work came out of it. I was pleased to get the other day a letter from Henry Coe, the well known gynecologist, who worked there and published a very excellent paper on cystic fibro-myomata. Dr. Sarah McNutt's study of infantile spastic hemiplegia was a notable contribution. It was an ardent little group of students. Carlisle was

among them. The microscopic slides made then compare well with the slides made today, as shown by photo-micrographs recently sent me by Dr. Carr.

I agree with Osler that the productive, creative thought of the world is done largely by those under forty. This does not mean that a man may not be a good business man or a good justice in later years. My most active, vigorous years were here in New York. For three or four years Dr. Goldthwaite and I played the rôle of "quiz" masters. It was a life-saver. But we both gave it up at the height of our prosperity. Although it was very successful at that time, it was abandoned spontaneously. We agreed that it injured the students as well as ourselves. I spoke of it a while ago before the College of Physicians and Surgeons. We were absorbed in autopsies, and had the run of Bellevue Hospital for a time. Many of my students were from the College of Physicians and Surgeons, among them Walter James, George Tuttle, John Thacher, Koplik, and Woolsey. So at the end of the year Delafield saw that things were going pretty well, and I was invited back under conditions that at one time I would have jumped at. But I felt that I would be a traitor after all that they had done for me at Bellevue if I abandoned them, so I declined very reluctantly. Delafield asked me whom they could get and I suggested Prudden, and they certainly were fortunate to get him—more fortunate than if I had gone. We had been together in Vienna. I don't like to have my name mentioned as a pioneer in modern laboratory pathology in New York without Prudden. He fitted up the old ice-cream tunnel under the 23rd Street College and started to work. He was so retiring, but did wonderful work and had a great influence, and never got quite the recognition he deserved.

About that time Dr. Jenkins, the coroner's physician, asked me if I would make his autopsies for him. I said I would if I didn't have to go into court. I did have to go to Flatbush once. Then I was registrar and pathologist at the Woman's Hospital. It was a delightful and active time.

What I count as especially good fortune was my association with Austin Flint, the elder, a great physician and a man of wide vision. He asked me to

rewrite the pathological sections of his text-book of medicine. It was all rewritten. I was allowed a perfectly free hand with all the pathological sections, with the exception of that on the excretion of cholesterin by the liver, which contained the work of the younger Austin Flint, and which was probably the most original feature, although at the time I did not know it.

These early days have come back to me with full force and vividly tonight. I am not going to talk about the later days.

I believe that I was called to Baltimore mainly on the advice of John Shaw Billings. He used to come and sit and listen to me teaching the class in the Bellevue Laboratory. I have never forgotten one time when he sat there the whole afternoon, much to my embarrassment. I was giving out and explaining sections of tubercle and gumma of the testes. Within a week, I got a call to Johns Hopkins. I rather think Billings was the decisive factor. I don't know. He became one of my most intimate and closely cherished friends and I think what he advised in connection with the Johns Hopkins Hospital and future medical school was decisive at that time.

During the year I spent abroad, chiefly in Germany, working with Flügge and Koch in bacteriology, before entering upon my duties in 1885 at Johns Hopkins, I visited Pasteur's laboratory. I shall never forget the circumstances of my visit when he put aside his test-tubes and showed me around his laboratory. Since then I have had pleasant associations with Roux, Calmette, Metchnikoff, and their delightful group.

I think the young men of today miss something in losing contact with European teachers and fellow workers, although it isn't that they have to go abroad to get the training and laboratory opportunities. I knew Ehrlich intimately in his student days, and kept up the friendship with him. I have his long letter that came in August, 1914, when the war broke out, telling what it meant to him. He never did any work after that. All that association has meant more in my life than I can tell you.

It may be appropriate just to recall what the opportunity then was for the

young man and how fortunate he was in bringing back the particular professional wares that he did. The bacteriological era was dawning. The tubercle bacillus had just been discovered.

Don't be too severe on me for being in academic harness at this octogenarian period. I resigned the important chair of bacteriology and pathology when I was sixty-six. I regard that as letting me out to some extent from this shocking situation of an octogenarian starting a new undertaking—the organization of an institute of the history of medicine—and for ten years previously endeavoring to do the difficult job of administering a school of hygiene and public health, which was a unique opportunity because it was a novel experiment—not being a mere institute or laboratory but creating an entire faculty of hygiene. The problems were like those when we started the medical school. What were the fundamental subjects? Was it possible to carry out the right idea that the heads of departments should be interested not merely in training but also in research? The difficulty in the field of public health education is that the reward for this service is not such as to attract as many of the right quality as are needed.

Now I am very much interested in getting something going in the way of an institute of the history of medicine. Here again is a subject by itself, but I am trying to stress today the humanistic aspects of medicine because in the past the whole emphasis was, in my case, and I think the times demanded that emphasis, upon the purely scientific side. But I do think we need medical humanism. The word "humanism" has unfortunately been used lately in an unhistorical and inappropriate sense to designate a particular literary platform or propaganda. We are in danger of losing a good word, just as we have lost the proper meaning of "social hygiene" because it is employed to cover venereal diseases. Emphasis upon medical humanism is very desirable at the present time. It is an asset for a physician, will make him a better doctor, and will give him a much greater influence in the profession and in the community. He will get far more out of professional life if he cultivates that

kind of interest. I am sure therefore that there are great possibilities for such an institute where real scholarly work can be done. Medicine is far behind in the line of historical research. But I must not enter into that tonight.

I do want to tell you, Mr. Toastmaster, and all of you who have spoken so generously of me that you have given me a great pleasure in affording an opportunity to refer to the days which I cherish most because those early memories are the most vivid.

The University Club

801 N. Charles Street,

Baltimore, Md., April 10, 1930.

To the Members of the University Club:

Dear Fellow-Members,

I wish that I could thank each member of the Club individually for the wonderful reception given to the president of the Club last night. I must content myself with expressing to the officers and members collectively, especially to those serving on the Committees, my heartfelt gratitude for this beautiful, as well as extraordinary manifestation of their regard and friendship.

I shall always hold dear and memorable the tribute and the occasion which your generous thought and action provided for me as a mark of esteem and good-will, prized above all as coming from intimates, associates and clubmates.

Birthday celebrations may not contribute to the longevity of octogenarians, but they leave very pleasant memories.

Faithfully Yours,

William H. Welch.

AT THE UNIVERSITY CLUB RECEPTION

ALFRED JENKINS SHRIVER

Vice President of the University Club

CHAIRMAN OF THE SPECIAL COMMITTEE FOR THE RECEPTION

WE have assembled here this evening to celebrate the eightieth birthday of him who in 1887 became one of the founders of the University Club, and who for the last fifteen years has been its beloved President; the foremost scientist and the most cultured gentleman of our age; a native of Connecticut, who has become the most loved, the most influential and the most public spirited citizen of this City of Baltimore and State of Maryland; and, as President Hoover yesterday expressed it, "our greatest statesman in the field of public health."

Dr. Welch was born at Norfolk, Connecticut, in 1850, and his native town has recently marked by a bronze tablet the house in which he was born. His nephew, Senator Walcott of Connecticut, later in the evening will read a memorial just received from the selectmen of Norfolk.

Dr. Welch was graduated from Yale University in 1870, and his alma mater always has taken the greatest pride in the wonderful career of her most distinguished son.

After teaching Greek and Latin for a year, he turned to the profession of medicine, and in 1875 he was graduated in medicine from the College of Physicians and Surgeons, in New York, a school in Columbia University.

The next year he went abroad, studied in Germany and in the summer tramped with an Irishman, Geoghegan, a fellow student, through the Black Forest, climbed the highest peaks of the Alps in Switzerland and Italy, and in the plains of northern Italy tramped so vigorously that his Irish companion collapsed and gave up the trip. While in Germany he studied under the greatest teachers of that country, and especially in chemistry, bacteriology, and pathology.

In 1878 he attended lectures in Paris at the Sorbonne, and in London he attended the clinics of the great Lister. In the spring of 1878, he returned to New York with no outlook for any special post.

After several unsuccessful efforts to secure a laboratory elsewhere, he was invited to come to Bellevue Hospital, New York, where they offered him three small rooms which were equipped at a cost of $25.

Here he did autopsies and taught students who came down to him from the College of Physicians and Surgeons and other medical colleges, where no pathology was taught. At this time he began the practice of medicine which he pursued with great success, but it was clear from the first that he desired to devote himself exclusively to scientific research. His diagnoses of cases were frequently not concurred in by his associates, but the post-mortems which confirmed his previously expressed opinions, quickly spread his fame.

One day in 1884, Dr. John S. Billings, who had been superintending the construction of the buildings of the Johns Hopkins Hospital, came to his laboratory when Dr. Welch was explaining to his students the distinctive features of certain diseases not mentionable in a mixed audience and Dr. Billings became so interested that he remained all day.

As a result of this visit, Dr. Welch was invited to visit the Trustees of the Johns Hopkins University in Baltimore, though no post had been offered him, and, suffering with a sore heel which would not heal up, he appeared at the old Mount Vernon Hotel with one shoe on his sound foot and a sort of soft slipper and an arctic on the other foot—a precursor of the gout shoes which subsequently have become so famous. He was offered a position on the Faculty, and accepted. There was then great excitement among his medical friends in New York, who used every effort to keep him there and to induce him to change his mind.

But Dr. Welch had cast his die and, when all arguments proved futile, his associates in New York decided to give him a farewell dinner. At this dinner Dr. Francis Delafield and his other associates, in sorrow, and apparently tinged

with some anger, because they thought he was making a great mistake, said: "Well, good-bye—you may become a connoisseur of terrapin and Madeira, but as a pathologist—good-bye."

The positive prophecy was wonderfully fulfilled and how gloriously was the negative one falsified.

In 1884, after his appointment to the Faculty of the Johns Hopkins University, he returned to Germany further to study, chiefly bacteriology and pathology with Koch and the other masters of the new science.

In 1885 he came to Baltimore and started work in three small rooms in Dr. Newell Martin's laboratory; and soon got in order a small building built as the morgue among the as yet unfinished buildings of the Hospital, and there fitted up a small laboratory.

The Johns Hopkins Hospital was opened in 1889, the opening having been delayed two years through financial reverses sustained by the university.

The Trustees, after having invited plans for the organization of the new Medical School from the most distinguished men of the country, finally selected the plans submitted by Dr. Welch and he thus became in fact the founder of that school, the Johns Hopkins Medical School, whose fame has spread throughout the world.

You all know the rest of the story. He has risen in fame and honor from year to year until today the whole world vies in paying him recognition and tribute.

He has held the highest honors from the chief medical associations of the world; the leading universities, such as Harvard, Yale, Toronto, Columbia, Princeton, Chicago, Cambridge, Strasbourg, have conferred on him their highest degrees, in recognition of his scientific achievements.

Artists in every line—painters such as Sargent and Corner, have painted him; a medical library, the most splendid in the world, is proud to bear his name; sculptors and etchers vie among themselves to portray his intelligent and genial features; thousands of grateful and devoted pupils everywhere sing

his praises; many governments have conferred on him decorations, and only a few days ago the Congress enacted a law authorizing him as a Brigadier General of the Army of the United States to accept and to wear the decoration of an officer of the Legion of Honor conferred by grateful France for distinguished services performed in the Great War.

Everywhere throughout the world, this week his beneficent and successful work of a lifetime is praised and celebrated, including the highest encomiums from the President of the United States. His own native town, his adopted city, and cities throughout the whole world have joined in joyous and heartfelt well wishes to him for what he has done, and in hope that he may be spared many more years for still greater achievements.

The Governor of this State, the Mayor of this City, and its leading citizens are here tonight to do him honor. This universal acclaim is not a tribute paid to a mere scientist. No mere scientist ever has been so acclaimed as he has been, whatever may be his merits. But it is to him as a man and a scientist.

His humanity, his common sense, his broad and deep interest in all human affairs, his love and keen and intelligent appreciation of all the arts, and his interest in every field of culture, his unselfish interest in his science, and his efforts for the good of mankind without looking toward material gain—have raised the profession of which he is so splendid an ornament to a standard and splendor never before attained.

It is most gratifying that this man so truly great, both in learning and in culture, has founded those institutions of the Johns Hopkins Medical School and the School of Hygiene and Public Health here in Baltimore; and it is our great good fortune that we so intimately share his great benefactions and are privileged to associate with him who has created them.

The prophecy of our poet Sidney Lanier has been fulfilled by his achievements, for it was Lanier who wrote prophetically, referring to this city, "A fairer Athens than of yore on these blessed hills of Baltimore."

Scientist, Dean, founder of the Johns Hopkins Medical School and the

School of Hygiene and Public Health, public-spirited citizen, Chairman of the Maryland State Board of Health for over a quarter of a century, Brigadier General of the United States Army, scholar, lover of the arts, humanist, sportsman, epicure, and above all the most universally loved man of all we know, and whom his students lovingly and proudly call "Popsy"; the friend and welcome guest of the rich, and the champion, in many instances, of the most undeserving poor—we congratulate you on your marvelous achievements during the period of eighty years just completed, and we feel confident that the Dispenser of Destinies will not call you at under par.

AT THE UNIVERSITY CLUB RECEPTION

WILLIAM H. HOWELL

Director of the School of Hygiene and Public Health of the Johns Hopkins University

I AM not entirely certain, Dr. Welch, as to which one of your numerous affiliations in this community I am representing tonight, but however that may be, it is a great delight to me to be one of those who bring felicitations to you on this notable anniversary of your birthday. The best thing about it to all of us is the realization that the anniversary finds you in possession of the splendid health and vigor which we always associate with you, for we are all agreed that the fine heredity to which you fell heir has expressed itself in a wonderfully sound body as well as a remarkable mind. It is a matter of sincere congratulation among us that throughout your long and extraordinarily active life you have been so fortunate in this respect. Barring a few minor ailments, a twinge or two of gout, the arrows of the Almighty, if I may borrow a phrase from Job, have passed you by, and you come to your four score of years with this precious possession unimpaired. This, I take it, is a sounder reason for felicitation than the length of years. The less said about the years the better in my opinion, for when I reflect how much we shall need you in the times to come I could wish that you were in reality as young as you seem.

When I attempt to express in behalf of this audience and your host of friends in this community something of the affection and respect we feel toward you personally and of our appreciation of what you have meant to us, I am greatly embarrassed by my inability to find fitting words to convey what is in my heart to say. In this, as in other matters, you have set for us such an unattainably high standard of excellence. Times without number, at the meetings of this Club, and on public and private occasions of every sort you have acted as our representative. You have always known how to say the right things in the

right way with a perfection and completeness that is without parallel in my experience. It is a gift which bespeaks not only a cultured mind, but an understanding heart as well. Subconsciously I believe that we are all regretting that you are barred from being our representative on this occasion, for no one else could express so well the things we would like to have said.

From the time that you first came to Baltimore, nearly a half century ago, you have been the center of an influence for good which has spread in an ever widening circle until it has taken in the whole country and the better part of the civilized world.

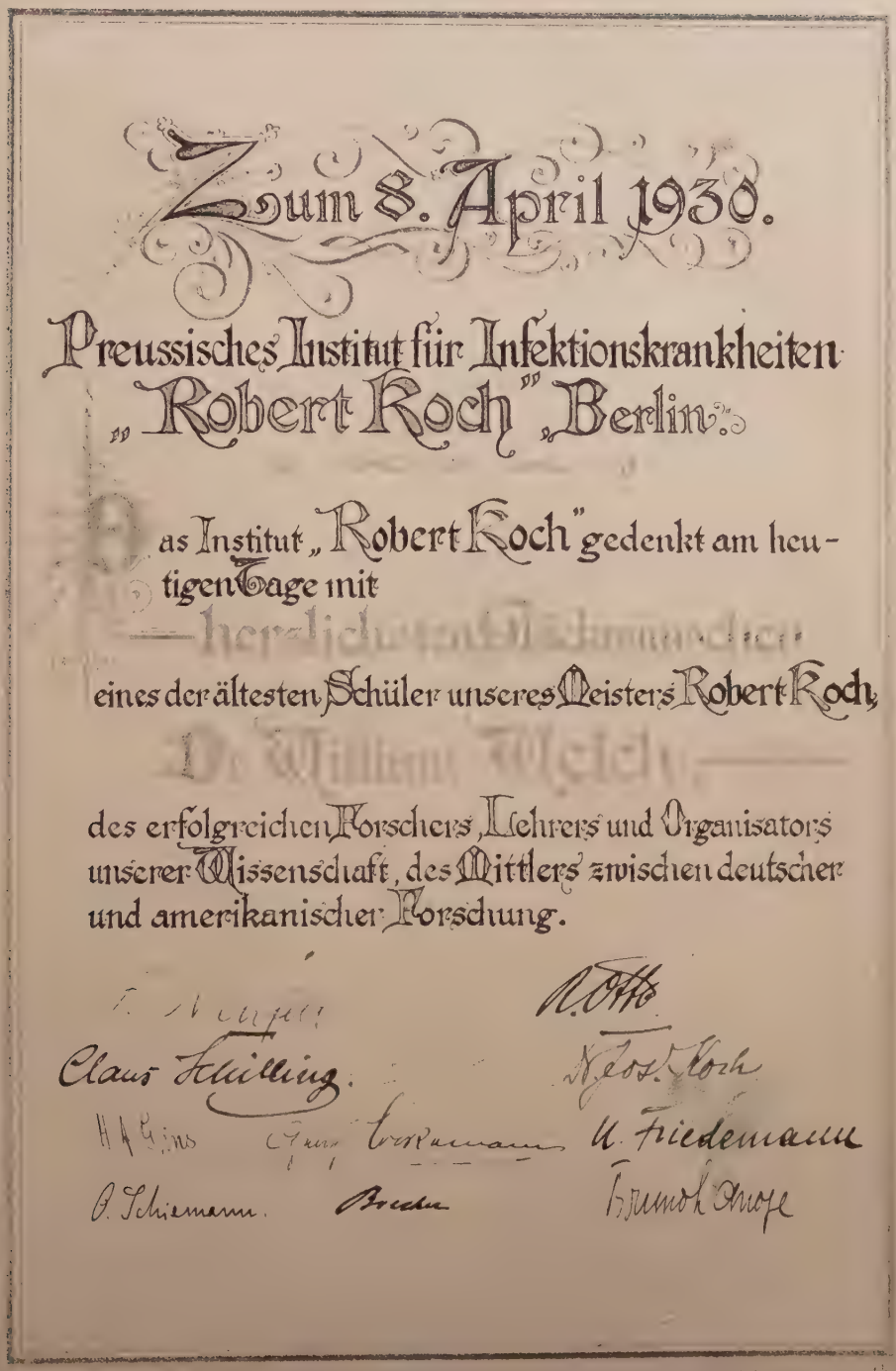
In this community you have been a leader in educational matters, in social life, in humanitarian enterprises of all sorts, whom we have been glad to follow. Time will not permit me to enumerate the many ways in which you have served us. It would make a formidable list. The great schools of medicine and hygiene which you were chiefly instrumental in founding, and in whose development you have been the guiding mind, will be counted, I believe, as your greatest achievement, for into their creation you put your most serious and sustained effort. In singling out this accomplishment I would not wish to imply that your services to the University were limited to these professional schools. Far from it. Your keen interest in all phases of its activity, your important advisory relations to the President and Board of Trustees, and your genial associations with the members of all the faculties have made you, for a generation past, the leading figure in the life of the University—our pride and boast.

To that smaller group of colleagues and pupils who have been brought closest to you by daily association in a common enterprise you have been no less than a modern Socrates—democratic, friendly, easy of approach for the little as well as the great; but always the Master to whose wisdom we have paid unhesitating tribute and whose influence has penetrated deeply into our thoughts and actions.

It is not possible and perhaps it would not be fitting for me to attempt to

analyze that magnetic personality, which is your great gift. All of us have felt its influence. We all know its charm. Many times in unexpected places I have been a witness of its effects. As a scientific worker I associate often with others of my kind at meetings in various parts of the country. Whenever we foregather it is a common practice for us to pass under review the accomplishments of our colleagues. More often than not, I grieve to say, we uncover the weak places in the armor of our friends. But whenever by chance your name, sir, comes into the discussion, criticism vanishes and only words of admiration and respect and personal affection are heard. It is almost a unique record, and all the more remarkable in that you, of all men that I know, make the least effort to cultivate popularity among your associates. You have not hesitated on occasions to champion unpopular causes or even unpopular persons, and by the same token you have not often failed in the end, with fine diplomatic skill, to convert others to your point of view. This universal good-will that you enjoy among your colleagues is in the first place a just tribute to your leadership in the scientific world, and beyond that it is a recognition of your large and lovable qualities as a man.

If there were any degree or decoration or other external symbol that could be bestowed upon the one who stands first in the estimation of the scientific men of this country it would, I believe, be awarded to you, *honoris causa,* to add to the other honors which you have received in such full measure, pressed down and running over. But so far as this present company is concerned, and especially your fellow members of the University Club, I am sure that I voice the feelings of all when I say that we would like to bestow upon you a special degree, *amoris causa,* certifying that you are the best loved and most sincerely respected member of our group, and admitting you to all the rights and privileges to that degree appertaining.



Zum 8. April 1930.

Preussisches Institut für Infektionskrankheiten „Robert Koch" Berlin.

Das Institut „Robert Koch" gedenkt am heutigen Tage mit herzlichsten Glückwünschen eines der ältesten Schüler unseres Meisters Robert Koch, Dr. William Welch, des erfolgreichen Forschers, Lehrers und Organisators unserer Wissenschaft, des Mittlers zwischen deutscher und amerikanischer Forschung.

F. Neufeld — R. Otto — Claus Schilling — Jos. Koch — H. A. Gins — Georg Lockemann — U. Friedemann — O. Schiemann — Boecker — Bruno Lange

From the tribute illuminated in gold and colors and sent to Doctor Welch by the Robert Koch Prussian Institute for Infectious Diseases, Berlin. The signatures are: F. Neufeld, Claus Schilling, H. A. Gins, O. Schiemann, Georg Lockemann, Boecker, R. Otto, Dr. Jos. Koch, U. Friedemann, Bruno Lange.

TELEGRAM FROM THE SELECTMEN OF NORFOLK, CONNECTICUT AND THE COMMITTEE ON THE NORFOLK CELEBRATION.

DR. WILLIAM HENRY WELCH
807 ST. PAUL STREET, BALTIMORE, MD.

NORFOLK, CONNECTICUT
April 5, 1930

AT *a special town meeting held in Norfolk, March 29th,* 1930, *the following resolution was unanimously adopted: Whereas April 8th,* 1930, *will mark the eightieth birthday of this town's most distinguished son, Doctor William Henry Welch, therefore be it resolved that the selectmen and the committee previously appointed for that purpose extend to Doctor Welch, on the part of the town, the following greeting: "On this day when all the world unites to do you honor, the Town of Norfolk reserves to itself the maternal right to be the first to offer you its respect and felicitations. We feel that we can reverse the words of Scripture and assure you that this town has always held its prophet in the greatest of honor. Those who knew you in boyhood have watched with pride and reflected glory your successive achievements. To the younger generations you have constantly been held up as a leader and a source of inspiration. Although in Norfolk eighty years constitute comparative youth, nevertheless we beg to remind you that you have been a long time away from home. All our affection and sense of kinship go to you in this greeting, the united expression of the whole Town of Norfolk." At the same town meeting, it was voted that the selectmen and this committee be instructed to design and place at your old home a bronze tablet with this inscription: "To Doctor William Henry Welch, Dean of American Medicine, this tribute, marking the place of his birth, was erected by his affectionate fellow townsmen, on the occasion of his eightieth birthday, eighth April,* 1930." *Signed, Town of Norfolk, Augustus P. Curtiss, George B. O'Connor, John Mulville, Selectmen; Irving L. Hamant, Alice B. Bridgman, Robbins B. Stoeckel, Everett P. Curtiss, William C. Connor, Committee.*

AT THE UNIVERSITY CLUB RECEPTION

FREDERIC C. WALCOTT

United States Senator from Connecticut

I AM expected to tell you something of the early years of our beloved victim, Dr. Welch. If it is true, as is claimed by the followers of Buddha, that the world rocked when Prince Gautama was born, it must be true that at least the granite-bound hills of Litchfield County, the northwestern corner of Connecticut, rocked when William Henry Welch, to be known to his worshippers as "Popsy," was born.

By inheritance Dr. Welch was predestined to deal with disease, for he came of a long line of doctors, distinguished and beloved. His early environment was the environment of the Edwardses, the Beechers, the astronomer, Asaph Hall, and the Dwights, the beauty of wooded hills and tumbling brooks, the rugged simplicity of living enforced upon an industrious native population whose only assured crop was, and still is, rocks heaved up by the winter frosts.

His native village, Norfolk, now famous as his birthplace, was reached only by stagecoach from the nearest railroad, nine miles away, until after Dr. Welch had graduated from college. Now, after three quarters of a century of progress in railroad construction, one can approach by rail within seven miles of Norfolk.

Nature's inexorable law, the survival of the fittest, was at work in full force in that pioneer belt, where character and brains were the prime products, rather than the by-products. The daily struggle developed in the winners rugged constitutions and great simplicity, coupled with patience, persistency, and courage. Distractions and side issues were few; life was dure.

The boy Welch prepared for college at a small boarding school at Winchester Center, a little village eight miles from home. There he stood at the head of his class, and at Yale, four years later, he graduated third in his class, at the age of twenty.

Quiet, modest, but brilliant and original, with little time for sport, but always a great walker and devoted to swimming, he was storing up both knowledge and health.

And now, at the risk of embarrassing our victim, let us turn on the spotlight by glancing at a few of the entries in the daily record of the school days at the Pettibone Institute made by Dr. Welch's life-long and devoted friend, Dr. Frederic S. Dennis.

First, we find:

> "May 15, 1864: General Sedgwick's funeral. Willie Welch went home to attend the funeral." [General Sedgwick was a brother of Dr. Welch's stepmother. Shortly before he was shot at Spottsylvania he was offered the command of the Army of the Potomac, but declined it.]
>
> "August 15, 1864: Came over from Norfolk. Dr. Welch [the father of Dr. William H. Welch] had two horses struck by lightning.
>
> "August 25, 1864: Took horseback ride this evening. Willie Welch and I went into the woods and read a book.
>
> "February 27, 1865: Welch talked with me today about uniting with the church."

Religious thought occupied much of their time. There were Bible meetings in those days, and the school life centered largely around the church and the prayer meeting. For instance, we find, on March 11, 1865: "Went to Enfield with Millard, Harrison and Welch, and held a meeting in the church. Harrison heard from home that his grandmother died. Seems very sorry."

> "April 15, 1865: The most solemn day our country has ever seen. President Lincoln assassinated at Ford's Theatre, Washington, at midnight. Secretary Seward was shot but did not die.
>
> "April 28, 1865: Willie Welch and Millard stayed after prayer meeting, and were examined to join the church. Joey Duryee cried with homesickness. I comforted him. Booth, the assassin who murdered Lincoln, was shot.
>
> "May 5, 1865: President Johnson has offered a hundred thousand dol-

lars for Jeff Davis's head, for he hired Booth to kill our dear President.

"May 15, 1865: Jeff Davis caught in women's clothes, a big rascal. Will Welch united with the church in Winchester Center."

I strongly suspect that my friend Dr. Dennis no longer believes that Jeff Davis "hired Booth to kill our dear President," but he probably still considers him "a big rascal."

"May 16, 1865: Went to meeting this evening. A very good one. Welch took charge. Mr. Ira appointed me next time."

We gather from the notes of Dr. Dennis that his chum and roommate at the Winchester School, Willie Welch, was a great Bible reader, as Dennis puts it, "a veritable St. Paul. As nearly as I can remember, Welch said that one could read the Bible through in a year by reading three chapters of it each week day and five chapters every Sunday."

One of the attractions at the Winchester School entertainments and the church socials was, it seems, a duet by Willie Welch and Freddie Dennis. It was always "The Sword of Bunker Hill."

He lay upon his dying bed;
  His eye was growing dim,
When with a feeble voice he call'd
  His weeping son to him;
"Weep not, my boy!" the vet'ran said,
  "I bow to Heav'n's high will—
But quickly from yon antlers bring
  The Sword of Bunker Hill."

The sword was brought, the soldier's eye
  Lit with a sudden flame,
And as he grasp'd the ancient blade,
  He murmured Warren's name;
Then said, "My boy, I leave you gold—
  But what is richer still,—
I leave you, mark me, mark me now—
  The Sword of Bunker Hill."

" 'Twas on that dread, immortal day,
  I dared the Briton's band,
A Captain raised this blade on me—
  I tore it from his hand;
And while the glorious battle raged,
  It lighten'd freedom's will—
For, boy, the God of Freedom bless'd
  The Sword of Bunker Hill."

"O, keep the sword!"—his accents broke—
  A smile, and he was dead—
But his wrinkled hand still grasp'd the blade
  Upon that dying bed;
The son remains; the sword remains—
  Its glory growing still—
And twenty millions bless the sire,
  And Sword of Bunker Hill.

Dr. Welch taught for one year in an academy at Norwich, New York, for the experience and in order to earn some money with which to go abroad for his post-graduate work.

My earliest recollections of Dr. Welch's younger days were during the summers of my boyhood. I spent the first fifteen summers of my life at the home of my grandfather in Norfolk, with my mother, Dr. Welch's sister.

I recall vividly the excitement in the family circle over the arrival of each letter from Germany. These were written from Strassburg, Leipzig, and Breslau, during the years 1876, 1877, and 1878. They told of his intimate relations with Virchow, Ehrlich, the great teacher, Koch, and von Recklinghausen and Cohnheim, whom he describes as "without doubt the two greatest pathologists living." There were frequent references to Cohnheim's investigations on embolism, edema, and hæmorrhagic infarction, and to his pedestrian tours with him to various interesting places. During one short summer vacation Dr. Welch walked 210 miles in Switzerland. In a letter written in May, 1877, we find this allusion to the great Cohnheim: "If Cohnheim should be

called to Leipzig next semester, which is doubtful, I do not think I should follow him, but if he remains here in Breslau, I may stay here, taking a little vacation in August." These men were developing a new science of pathology.

Then come numerous references to the plans for the new university in America, to be known as the Johns Hopkins University.

For me the summers flew after the young pathologist returned from his student days in Germany. He taught me how to swim, and much else as we lay on our backs on the sandy shore of Tobey Pond, sans raiment, being fortified by the ultra-violet rays, which, even at that time, Dr. Welch believed to be a panacea for most of our human ills. It was at such times that his philosophy emerged: "Life is as simple as you make it." "Truth is the only thing that counts."

There were wonderful tramps through the woods along some brook with the great teacher, studying the fungi—for he was, even then, a great teacher. No one could come under his influence without absorbing some of his wisdom.

I shall never forget the summer when the young pathologist was working on embryology. I was, possibly, ten years old, and was delegated to furnish the material by setting three hens on a dozen eggs each and supplying the microscopist with at least an egg a day during the twenty-one-day period of incubation. I would stand over him to get an occasional glimpse through the microscope of the immature heart or eye and to have all the processes of life explained, new worlds, new revelations planted in my mind at the right time and in the right way.

Now, upon the celebration of his eightieth birthday, think of the thousands of human beings that have been permanently influenced and stimulated by this great teacher, all eager, now, to pay him tribute. The sun never sets upon the sphere of his influence. His life has always been, and still is, a benediction to mankind.

From a photograph of the exhibit in the Library of Congress at the time of the Welch celebration. Conspicuous is one of the Hutty etchings which had been presented to the Library.

AT THE YALE SCHOOL OF MEDICINE

C.-E. A. WINSLOW

Professor of Public Health in the School of Medicine of Yale University

DR. WELCH has had long and intimate connection with Yale. He received his A.B. from the college in 1870. A year later he returned for graduate work in the Sheffield Scientific School. Science was just being introduced into the university at this time and he had the opportunity of taking a number of courses in chemistry under such a pioneer as Silliman.

After getting his medical education in the College of Physicians and Surgeons, in New York, Dr. Welch went abroad, just at the beginning of the great scientific era, and came into contact with such men as Koch, Cohnheim, and Pasteur. He returned to New York and began teaching pathology, establishing a reputation which led to his appointment in 1884 to the Faculty of the Johns Hopkins University. He became Dean of the Medical Faculty in 1889. The Medical School was opened in 1893 and Dr. Welch, by virtue of the broadness of his vision and the freedom and encouragement he gave to his colleagues, not only made this school the foremost in the country, but was instrumental in revolutionizing medical education generally. He has always fought for the principle, now so widely adopted among the better schools, of full time faculties in medicine.

Dr. Welch has invariably taken a keen interest in the development of medicine at Yale University. At the 200th anniversary of the founding of Yale, in 1902, he delivered an address which contained an historical summary of Yale men in medicine. When the Sterling Hall of Medicine was dedicated in 1925 he gave the dedicatory address. In 1929 he presided at a dinner in New Haven at which the formation of the Institute of Human Relations and the Human Welfare Group was announced. He is Chairman of the National Advisory Committee of the Human Welfare Group.

AT THE LUNCHEON IN CINCINNATI

Under the Joint Auspices of the Chamber of Commerce, the Cincinnati Board of Health, the Public Health Federation, the Cincinnati Academy of Medicine, and the College of Medicine of the University of Cincinnati

W. D. HAINES

Associate Professor of Clinical Surgery at the College of Medicine of the University of Cincinnati

PRESIDING AT THE LUNCHEON

THE Forum of the Chamber of Commerce extends a hearty welcome to the members of the Cincinnati Board of Health, the Public Health Federation, Cincinnati Academy of Medicine and the Medical College of the University of Cincinnati. We are very pleased to have you with us today to join in the celebration of the anniversary of the birth of Dr. William Henry Welch.

Doctors are like the verbs of most languages, regular, irregular and otherwise. We have about 150,000 of them in the United States. I think each one feels that he has the best, but just here and there the world casts a vote to decide who is really the best doctor in the world. All over the world today they are celebrating the anniversary of the birth of Dr. William Henry Welch, one of the outstanding figures in the scientific world. We are very fortunate, locally, in having the subject presented by a man who himself stands out dramatically in the profession.

I take great pleasure in introducing the Eichberg Professor of Physiology of the Medical Department, University of Cincinnati, Dr. Martin H. Fischer.

AT THE LUNCHEON IN CINCINNATI

MARTIN H. FISCHER

Eichberg Professor of Physiology at the College of Medicine of the University of Cincinnati

USUALLY when one is invited to speak it is a matter of difficulty, but today it is extremely simple because, given a good subject, words come naturally and from the heart.

In reviewing the life and labor of so great a man as he whom we honor today, one should, of course, look at what other men have said, and so I must confess that while I did not consider it necessary to consult the Encyclopaedia Britannica, I did look into some current notes regarding William Henry Welch. The high pressure publicists tell us that Dr. Welch is a man, a gentlemanly one, stockily built, with a Vandyke beard, and one who carries his head slightly to one side. Beyond this they say that he is unknown to the public. That is just indirect evidence of his greatness, for the public never knows its great men, but only the Republican party. Now all these things are true, and yet, in the few minutes allotted to me, I want to give you a somewhat different picture. I want to make clear to you that we are trying in this moment to honor one of the great forces, if not the greatest single force, that the past half century has yielded our American medicine.

This being Dr. Welch's eightieth anniversary, I need not remind you that he was born in 1850. I recall the date in order that you may think of the background against which this man has lived and worked.

It brings him at the age of twenty into the year 1870 and we shall see shortly that it is in the next three decades that there occurs in medicine more change, if not always more progress (I have doubts regarding all progress), in the total aspect of medicine than in all the three thousand years that preceded it.

Welch was and is the American factor in this total change, and hence my emphasis.

Dr. Welch was the son of a doctor, and the grandson of a doctor. Four of his uncles were doctors. I like to emphasize such facts, because today there is a way of losing for the race the great accumulation of energy and of accomplishment which is possible through the development in successive generations of what I call for short, similar habits of work and of thought. The greatest painters are the sons of great painters; the greatest composers, the sons of great composers; and the greatest thinkers, the sons of men and women of like temperament. Today we put the especially well trained individual, technically or mentally, into something as far removed as possible from a field which would best nurture his virtuosity—we are very likely to put him into the insurance business, and if he is really skilled of mind we make a bond salesman of him, especially if he has had a university education. So it is to the credit of Welch that he sprang from a line of doctors, was one himself, and has stayed such a one as we like to honor in this golden 1930.

Let me remind you that at sixteen he was ready for college and entered it. Today we feel sorry for the boys who have been so overworked that they are able to enter college at sixteen. At twenty, he was graduated as a Bachelor of Arts. The degree meant something in those days and he ranked third in his class on the basis of work actually accomplished. Upon graduation he became a teacher and teaching in 1870 was probably much what it is today—a discipline into which only fool idealists enter who know ahead of time that they will never be written up in the success magazines. May I stress what he taught? He taught the two deadest things that God tolerates in an age of Fords and Lincolns. To be able to teach Latin and Greek meant, of course, that he really knew these two languages. Today we still debate the merits of any language requirement. I call your attention to the existence in Welch of these ideals, for I believe that they affected what he stood for afterwards in the whole of his great fight for the improvement of medical education in our

country. Latin and Greek were more to him than two more languages—they were the keys to two more civilizations, and none knew better than he that "to despise the one," as so many do today, "was to be ignorant of the other."

After a year of such teaching, we find the young Welch entering medical school, the College of Physicians and Surgeons in New York, to be specific; and while vibrating between this institution and the Sheffield Scientific School in New Haven—the modern deans in university education should note the irregularities in his attendance—he became a Doctor of Medicine, at the age of twenty-five. Let me ask your attention to these facts. We are in the year 1875 and one got a medical education in those days in three years, and the sessions were five months long each. It seems to have been enough for Welch, but today we laugh at such requirements. Today there is not left a one-horse medical college that does not require a minimum of four years of nine months each, for the attainment of the medical degree, and no one is personally more responsible for this change than Welch. And that is not all that we require of the man who is today esteemed capable of looking after your bodily ills. A minimum of two years in college is added, and a minimum of one or two years as intern and house physician. From three calendar years we have come to seven, or maybe nine. This training Welch introduced into American medical education.

Now, what did he do after he was graduated in medicine? He continued his internship, already begun at Bellevue Hospital, until the Spring of 1876, when he went to Europe. There he spent two years. These years are interesting, for something within himself drove him to Europe and something of Europe he brought back within himself. For a little while in New York he was an honest-to-God doctor. Why this definition? Because such men are rare today. He had been schooled, as I will show you in a moment, under the best men of Europe. He had learned and had himself become capable of enunciating principles in science, yet he knew how, when face to face with the sick, to apply such principles. That combination of science with an under-

standing of the human heart yields the great doctor, and we have too few such today. Welch had within himself a knowledge and a philosophy of medicine derived from the observation of nature and a reasoning regarding the way in which things hang together, while for the world at large he had an understanding of its plight. He brought the two together in tolerance, kindliness and self-sacrifice and that is why we honor him.

I go back now to those years in Europe. They are thrilling, first, in and of themselves and, second, because Welch was one of the men who made them such. Were I to recite his experiences to you in American school terms, I should have to mention a series of universities bearing city names—Breslau, Strassburg, Vienna, Berlin, a touch even of London. That is the way we catalogue the graduates of our own universities. But I am going to give you a different picture. These places were the addresses at that time of a series of men, and it was these that Welch really went to see. And when I read you the names of the five or six men with whom he worked chiefly, you will have at once the key to his own mind and to that which determined for him ever afterwards the kind of work and the way of thought that have given him his distinction.

He worked with Waldeyer, almost the father of modern anatomy and histology; he worked with Hoppe-Seyler, who is the father of physiological chemistry; he worked with von Recklinghausen, the mental thorn of his day in pathological thought; he worked with Carl Ludwig, the greatest physiologist of his time and the man from whose little laboratory there went out all the professors of physiology to all the universities of all the world; he worked with Wagner, not so well known, but a great soul in practical medicine.

He had largest contact, however, with two other men. One of these was Julius Cohnheim, himself a pupil of Carl Ludwig, and the other, Robert Koch. Though trained as a physiologist, Cohnheim was functioning as a pathologist. This meant that he was working with a fresh point of view in pathology, a dynamic one, and it was this point of view which Welch

carried into American pathology when he returned here. Pathology had sunk since the days of Virchow to the level of mere description and pretty pictures; Cohnheim and Welch gave it life once more.

It was in Cohnheim's laboratory that Welch encountered Robert Koch. Let us get the times straight. This is A.D. 1876 to 1878. It is the moment in modern medicine when the great sun of bacteriology is about to rise. Well, into Cohnheim's laboratory comes Robert Koch, who at that time is working on anthrax and formulating the laws that since have borne his name. Anthrax had been worked upon by Pasteur even earlier and a rod-shaped organism had been designated as a cause, or perhaps the cause, of anthrax in animals, but Robert Koch first proved it. So stirred was Cohnheim by Koch's discoveries that he bade his own students—and Welch was one of them—to leave him and to follow Koch. Thus was nurtured in Welch, in Cohnheim's laboratory, not only his subsequent enthusiasm for dynamic and experimental pathology, but for bacteriology as well.

And Welch also worked with Chiari. Chiari is not as familiar a name in pathology as some others, save to the insiders, but he was a teacher who taught his pupils how to see.

Cohnheim, Koch, Chiari! Welch brings the point of view of these men to the United States. There are others who have brought some of these points of view with Welch, but Welch remains the first and the greatest of them.

But Welch did more than peddle the ideas of other men; he worked early and hard and contributed, in no mean fashion, as I shall show you, ideas of his own.

In 1878 he wrote his first medical article of which there is record. It discussed a subject which may not interest you, pulmonary edema, but it brought a notion into pathology which has been believed ever since. Let me break into a recitation of his scientific accomplishments in connection with this work of his on edema. I saw Dr. Welch pin a medal on a man for experiments in this field which, if correct, wipe out his labor of years. That is the size of the man.

He worked also on other subjects, to you perhaps less well known, namely, on fundamentals in infection, on cancer, on embolism and the causes of these things. What he taught has today become the text-book heritage of every medical student.

Welch became early a first worker in bacteriology. Think again of the late seventies and early eighties and see Welch turning the resources of his mind to the investigation of diseases for the causes of which the activity of micro-organisms was just being suggested. In those years and the succeeding ones he worked on hog cholera, pneumonia, diphtheria and wound infections. During our Civil War, to be wounded was to die; and this was not because of the wound but because of the infection which took place in it. Men perished like flies of "wound fever" or "hospital gangrene." That was medicine without such knowledge of bacteriology as Welch introduced into American medicine. If today the surgeon may inflict any wound he chooses, and without harm to the patient, it is the result of that work and that thinking which Welch gave us. It is not the surgeons who have made modern surgery the spectacular thing it is; it is men like Welch and Koch and Pasteur.

Welch worked on almost every phase of the infectious disease process from the biology of the organisms themselves to the pathological effects produced by their poisons; and all types of disease fell under his scrutiny, from those which plague mankind to those which plague the domesticated cattle. One organism which he discovered is today known by his name, though by him called the *Bacillus ærogenes capsulatus*. It is an organism of which we do not hear much in the clean and piping times of peace, but let us have war, let us have again large numbers of men injured and dirty, and then we may see again what this organism can do. It is the famous gas-former of the last war that contributed so largely to the mortality of all men.

Welch stands in American medicine as the great proponent and inventor, we might say, of public health. Not content merely to know, he wished his fellow countrymen to know and so to live longer and better because of it.

Die Berliner medizinische Gesellschaft

beehrt sich Ihnen mitzuteilen, daß sie Sie, hochverehrter

Herr Dr. William Henry Welch

anläßlich Ihres 80. Geburtstages

wegen Ihrer weltbekannten Verdienste um die Bakteriologie und wegen Ihrer unwandelbaren freundlichen Beziehungen zur deutschen Wissenschaft einstimmig zum

Ehrenmitglied

ernannt hat. Die Berliner medizinische Gesellschaft verbindet mit dieser Mitteilung die herzlichsten Wünsche für einen gesunden und glücklichen Lebensabend.

Vorsitzender: Prof. I. A. Goldscheider

Schriftführer: Prof. Dr. C. Adam.

BERLINER · MEDIZINISCHE · GESELLSCHAFT

From the engrossed certificate of Dr. Welch's election as Honorary Fellow of the Berlin Medical Society, which was sent to him for his Eightieth Birthday. The signatures are: Chairman, Prof. I. A. Goldscheider; Secretary, Prof. Dr. C. Adam.

Wherefore he turned his knowledge of pathology and bacteriology to the public good. That is what we mean today when we talk about public health. It means the application of our latest knowledge to the biological capital and the general health to keep the crowd as free as possible from the things which once struck down armies of babes and women and men.

I love Mexico as I love few other countries in this world. Step across the Rio Grande with me for a moment and let us take a look at that most beautiful of lands. You may ride for two days from the border through an Eden. But if you leave the car, you may shake hands with a leper; and later, as you sun yourself in the plaza of any of its major cities, you may see such sights as break your heart. So many women are constantly dressed in black and so many men wear black arm bands! When you have come to know the families of those fourteen million and ask about the children, you discover that half of those that were born are dead. You may sit by the edge of a cemetery and see a constant procession of family groups bearing one of their number to the eternal rest. The picture always recalls a little of that which even I can remember of my first days in medicine. It is the picture of disease gone wild, of disease uncontrolled—it is the picture of American medicine before the days of Welch; it is just the drama of life depicted as it was in the United States before the labors of this great man.

Welch has influenced the entire trend of our medical education. It was but natural that a general would wish to train his lieutenants. Welch's thinking never ended in thinking, as with so many of us, but in action. And thus he has changed the ways of medical education as no one else has changed them in our United States. From his three-year course, which consisted chiefly of a series of lectures, medicine has grown into the elaborate four or seven-year course in which the laboratory, and the direct observation of animals, of sick men and of dead men are taken for granted.

Let us retrace our steps and ask again about the beginnings of these now so evident accomplishments, for they teach a significant lesson to us of this

generation. A glorious picture, that of 1884, when Welch is made professor of pathology in what was destined to become the medical department and hospital of the Johns Hopkins University. He was then thirty-four years old. But those other men of that faculty which made Johns Hopkins great—Martin, Osler, Halsted, Mall, Kelly—not one was forty when he assumed his chair. That was the faculty that Gilman gathered together, and if you want to know why he got a great university, it was because he had the foresight to recognize this half dozen men in the flush of their youthful thinking. He had in addition four million dollars as endowment. Well, four million dollars is a lot of money and yet it is only what each of several universities in this country now *spends* every year, and still you are hardly aware of their existence.

Let us remember this historic picture. Give the right men a few thousand dollars and let them alone, and you are likely to get large returns. Bring on an efficiency engineer, hire an army of robots, institutionalize and organize them —and count the dead. We have accumulated an ever lengthening list of technical schools and cow colleges and a shortening one of universities in which there is life. Welch has seen and has tried to stem this current. What he has done as administrator has been to insist upon the maintenance of the university spirit, that of a house in which men may still think, and differently.

If we live longer today, it is because Welch has willed it so and taught us. And if we live better, we owe it to his ideal that life should be not merely longer but richer and fuller and more satisfying.

We find him upon this, his eightieth birthday, professor of the history of medicine in the institution to which he has given his life. We wish him happiness and peace, for, in the words of my favorite monitor, "philosophy is still the supreme comfort of age."

AT THE LUNCHEON IN CINCINNATI

RUSSELL WILSON

Mayor of Cincinnati

I SUPPOSE I am here today not only as Mayor of the City of Cincinnati, but to represent the patients of Cincinnati—spelling patients with two t's. I have depended entirely for my inspiration upon what Dr. Fischer has so eloquently said to you. I have been content, and my contentment is justified that he shall prescribe what I shall say, and he also inspired me, and perhaps it is not the first time that a physician has prescribed and also inspired.

I show a great deal of temerity in rising before so many doctors. I have a great deal of respect for physicians and I have a maximum of fear of them. I see among these eager, upturned professional faces, men who have looked into my eyes fondly but expensively and men who have ogled my tonsils, which I still have.

It is doubtless fitting that the Mayor of the city should speak in honor of Dr. Welch because Dr. Welch has been one of the number of men in our generation who have converted private health into public health, who have made us realize that the difficulties of the individual are not alone his concern but the concern of the entire community. And it is appropriate that I should appear on the same platform with professional gentlemen who are giving their lives to improve the health of the city. I hear from them repeatedly (or I have heard from them repeatedly during the few months of my incumbency in office) and whenever they speak to me it is with the eloquence of experienced and medical orators. And they are indefatigable workers in behalf of the public health. I know of no more indefatigable person today, unselfishly laboring in behalf of the community, than my dear friend Dr. Peters, who sits on my left. And then we have Dr. Bachmeyer here, who administers the affairs of our General Hospital, and I must pay tribute to his unselfish labors.

We have among the incidents of our civilization what is known as "jake." And this afternoon the Council, including the Mayor, is going to journey to the City Hospital so that the members may visualize the necessities created by this epidemic and realize more poignantly the grievous effects of this sudden affliction that has come upon our community.

Now Dr. Welch is one of the principal men who have caused the activities of men like Dr. Peters and Dr. Bachmeyer and have caused other benign insistence to be brought to bear upon the officials of the city that more and more must be done in behalf of the public health that you as individuals may be happier and may enjoy a greater physical and mental prosperity. It is fortunate that in our civilization men like Dr. Welch are laboring day by day in laboratories to subdue under microscopes another empire—the empire of bacteria. And we have come to realize more and more that that empire must be subdued, that the activities of these micro-organisms must be brought within the power of man so that man, knowing what are his greatest enemies, may be able to contend with them. And on the other hand, while we have microscopes leveled at or rather superimposed upon these micro-organisms that have a hostility to mankind, mankind itself is creating other instruments that produce things to destroy that which the medical profession would conserve. We have been more successful in our campaign against these micro-organisms than we have been successful with our fellow men. We have partly succeeded in preventing micro-organisms from destroying us, but we have not succeeded in preventing men from destroying their fellow men. In other words, the doctor's efforts will be cancelled in the ravages of war, and unless we can reach a solution whereby men will be more benign toward men, all that Dr. Welch and his contemporaries have done in this great age of medicine will be counteracted by what men do to destroy each other.

In celebrating the very day that Dr. Welch has become an octogenarian, there occurs to me another phase of civilization and that is that we do delay honor and postpone recognition to the men who, like Dr. Welch, are laboring

in laboratories, working in laboratories to increase our happiness, while we are quite content, nay, often anxious to do honor to those whose work is not comparable to the work of these scientists. We today find our greatest satisfaction in giving a note of praise to William Henry Welch of Johns Hopkins. But, the world usually gives its attention to those who entertain rather than to those who accomplish much for our permanent good. It is a sad commentary that Douglas Fairbanks is known to the millions, whereas Dr. Welch is known merely to the thousands. Yet no one, I am sure, would compare the work of the two men, even though you may be, as I am, quite willing to give Douglas Fairbanks the praise that is his due. We give our millions of dollars, we give great quantities of appreciation to those whose work is merely temporary, if perhaps artistic, whereas it takes a concerted effort on the part of citizens of the United States to give an all too inadequate mark of appreciation to a man who has labored for all of us and who has befriended all of us.

Dr. Welch has led the cloistral life of a scholar. He has led the life of a man who has been quite content to go his way, merely satisfied with the consciousness that he is doing much for his fellow men. There is not one of us here today, perhaps, who has not in some way experienced benefit from what Dr. Welch has done in his laboratories and his class rooms. And so I feel today that I am not giving him the intelligent appreciation that a medical man can give, and that Dr. Fischer has given. I am merely uttering the gratitude of the millions of people upon whom Dr. Welch has conferred a real blessing. So I shall close as I began—I am here to represent the patients to whom Dr. Welch has ministered. I am here merely to express the gratitude of those who have felt the healing touch of his invisible hand.

AMERICAN SOCIAL HYGIENE ASSOCIATION

At a Gathering of the New York Headquarters Staff

ANNA GARLIN SPENCER

Lecturer and Writer on Social Science

THE many groups meeting today in many places to celebrate the eightieth birthday of Dr. Welch, hold in grateful memory not only the service of a great man but the progress of great social movements. When in the years between 1903 and 1910 a small company of forward-looking people tried to blaze the way toward adequate training of professional social workers, two slogans expressed their urge toward effort. One was the call to "Abolish Poverty." By poverty was meant not relative gratification of desire by which one feels poor who has not every luxury and another feels rich with the simplest comforts. What the enlightened social workers who issued the call meant was the abolition of that enforced plane of living which is below the standard of health and work efficiency. Since that call was issued all expert social service has labored to that end.

The second slogan which followed was "Abolish Preventable Disease." Personal and family case work led to the conviction that physical and mental disease and incompetency were the outstanding causes of the poverty and misery that should be abolished.

To fulfill this new demand the medical profession began the health crusade which has been the chief glory of social work in the last forty years. In that crusade Dr. Welch has been so great a leader that we honor ourselves in recognizing his greatness today.

We must still have social surgery, that is, cut out social ills that prevent social welfare. We must still have social therapeutics, that is, nurse the socially ill and help the socially weak to achieve what they may in a difficult world. In both these fields the socially-minded doctors have a leading place. At the head of their army and holding its banner, still marches our own Dr. Welch.

AT THE MEETING IN SAINT LOUIS

Held Jointly by the Missouri Social Hygiene Association and the Saint Louis Medical Society

ERNEST SACHS

Professor of Clinical Neurological Surgery at Washington University

YOUR program committee has asked me, a former pupil of Dr. Welch, to say a few words about him tonight when all over the world meetings are being held to do him honor on this, his eightieth birthday.

The fact that the President of the United States is taking part in celebrating the birthday of a private citizen, this citizen of the world, is evidence of Dr. Welch's great eminence. In addition to the great celebration in Washington today, similar ones are taking place in London, Berlin, Paris, Tokio and Peking; and in this country in Baltimore, New York, New Haven and Cincinnati. As far as I know, no American physician has ever been so honored.

What has Dr. Welch done to deserve such honors?

Dr. Welch has attained a unique position in American medicine because of his many valuable contributions which have advanced medicine in this country. He has been preeminent as a teacher, as an investigator, and as an administrator. But in addition to this, his lovable character, his generosity and kindliness toward all who ever came in contact with him, have endeared him to all. For that reason he is always referred to by his former students as "Popsy Welch."

Dr. Welch's career has been a striking example of how industry and steadfast adherence to one's ideals bring a man to the forefront of his profession. He began his pathological studies while an intern at Bellevue Hospital in 1874. He continued these studies in Europe from 1875 to 1878. While there, he studied under the great founders and leaders of modern pathology and histology,—von Recklinghausen, Waldeyer, Ludwig, Koch and Cohnheim. At

the end of that time he returned to America, a marked man. Between 1878 and 1884 he first displayed his skill as a teacher. During those years at Bellevue Medical College he made his reputation as one of the future leaders of modern pathological thought in America.

When that remarkable man, Daniel Coit Gilman, began to select his new faculty for the Johns Hopkins University he picked out Dr. Welch as the man to help him develop a medical school which was to set new standards. Dr. Welch was the unanimous choice for this position. The men with whom Dr. Welch had studied abroad as well as all whom Dr. Gilman consulted in this country, recommended Dr. Welch as the one man preeminently fitted to head the pathological department which was to be the cornerstone of the new medical school. Shortly thereafter, those other three eminent men, Osler, Halsted and Kelly, were asked to join Dr. Welch. These four men, immortalized in that great painting of Sargent's, started out together to build the great medical school in Baltimore.

It was my good fortune to be a student at Hopkins when these four men were at the height of their power. Those were unforgettable days. To see Welch, Osler and Halsted in animated discussion at one of the Monday night medical meetings was an occasion long to be remembered. It was on an occasion like this that the clear, logical reasoning, the incisive thinking, and the profound knowledge of Dr. Welch could be observed at their best. Though always courteous and generous, Dr. Welch never hesitated to express his opinion forcefully. How well I remember a certain evening when an enthusiastic gentleman from Boston came down to Baltimore and condemned the routine urine examination which Dr. Osler and his clinical pathologist had been trying to make students carry out. It seemed for a moment as if all their work were to be undone. But Dr. Welch, with his usual clear-sightedness and incisiveness, yet with that irresistible smile on his lips, flayed the Boston gentleman alive. But he did it so charmingly that I am sure the gentleman in question enjoyed his flaying. During those years, Dr. Welch made his influence

felt along other lines than pathology. From the first, he was greatly interested in public health work and, as President of the Maryland Board of Health, finally succeeded in introducing a modern sanitary system in Baltimore.

During these years, however, in spite of his many activities in various fields, he kept up his teaching of pathology. In presenting a subject clearly and giving a logical survey of a subject, he was a master. His lectures on diseases of the kidney or on thrombosis and embolism, the subject about which he had written such an important monograph, were wonderful to hear.

I had the good fortune to see Dr. Welch do an autopsy, very different I can assure you from the bungling clumsy affairs one too frequently sees.

In the past twenty-five years, Dr. Welch's interests and influence have been felt in other fields of medicine. In 1910 he was elected President of the American Medical Association. This event was celebrated with a memorable dinner in Baltimore, attended by many of his students who loved and admired him. The bronze plaque of Dr. Welch, which I have laid out on the table, was made for that occasion. Since that time one honor after another has been heaped upon him and all of these he has accepted with a modesty and simplicity that in itself is a mark of greatness.

His advice has been sought all over this country by countless institutions and as a result he has done more to advance medical education than any other man alive or dead. He has been fearless in recommending entirely new methods in education. He first proposed the so-called full-time system and advised that it be given a fair trial to see if it might not be a way of correcting evils that had crept into some American medical schools. But while others have claimed this was the only solution for these evils Dr. Welch has kept an open mind on the question and has maintained a judicial attitude. This open-mindedness has characterized all his actions and accounts for the confidence that men of all shades of opinion have had in his views. Here in St. Louis, both St. Louis University and Washington University have had the benefit of his advice and wise counsel.

During the war, Dr. Welch did most valuable work in Washington and since then helped to found the Johns Hopkins School of Hygiene and Public Health. As its first director he outlined the broad plans which have since been followed. He resigned this post at the age of seventy-six.

But not content to rest on his laurels, he has devoted the years since then to the development of the Johns Hopkins Institute of the History of Medicine, the first institution of the kind to be created in this country. In spite of his advanced age, he traveled over Europe collecting treasures for this most recent undertaking of his. When the Institute was opened, the new library was fittingly named for him, the William H. Welch Medical Library, and he became its first professor of the history of medicine.

Dr. Welch has been honored by countless scientific societies; he has left his lasting impression on American medicine and American education. For these things, as well as his true nobility of character, medical men all over the world are today gathered to do him honor.

AT THE DINNER IN HOT SPRINGS

Given by the Hot Springs and Garland County Medical Society,
Hot Springs, Arkansas

FRANK VINSONHALER
Dean of the School of Medicine of the University of Arkansas

TODAY in the city of Washington is gathering a group of men to do honor to the outstanding man in medicine, Dr. William Henry Welch, the occasion being his eightieth birthday. I recall no similar occasion where a President of the United States has figured in such an event. No greater tribute could be paid to a medical man than this one.

Wherever science in medicine is known, there will be honored the name of Dr. Welch. There will be messages and telegrams from all over the world. Old age is honorable, and a life so full of achievement should receive its crowning glory.

My mind goes back to almost one-half century ago when I was a student in the College of Physicians and Surgeons of Columbia University. Then it was the custom to slip over to Bellevue, avoid the watchful eye of Joe Standish and hear Dr. Welch upon Pathology. If my recollection serves me correctly, he was the first person to teach Pathology in these United States. Bellevue Hospital Medical College was then one of the great medical colleges of the United States. It ranked with Jefferson Medical College in popularity. Both of these institutions had drawn largely upon the medical profession of the West for their outstanding teachers. Both of them symbolized what was best in the art of medicine, for medicine in those days was still an art. Its scientific side was to be represented by a group of men, of whom Dr. Welch was one of the pioneers.

I recall him now as he lectured before the large group of medical students,

all the seats filled and many students seated in the aisles. He taught in a manner quite different from that to which I had been accustomed. In those days the popularity of a medical teacher depended in part upon his style of lecturing, which included perhaps some of the arts of the successful stump speaker. A lull of interest on the part of the student class, a little tedium in the course of the lecture was always the signal for a story which brought its round of laughter and applause.

The faculty at Bellevue included Austin Flint, Sr., as Professor of Medicine, Bryant in Anatomy, Valentine Mott in Surgery and Doremus in Chemistry. Austin Flint, Sr., was in a measure at that time in American medicine the type that Osler afterwards represented.

The course in medicine in those days required only two years, and the slogan among the students was "Know your Anatomy." The balance of the medical instruction as Dogberry would say "came by nature."

Dr. Welch at that time was a very attractive figure. His method of lecturing was absolutely free from all effort at effect. He was clear, lucid and thorough. His popularity was demonstrated by the fact that students from the College of Physicians and Surgeons and the University of New York Medical School, which was always on fighting terms with Bellevue, attended Dr. Welch's lectures.

My demonstrator of Anatomy at that time was Halsted. He was a wonderful teacher. Notwithstanding the care and interest which he demonstrated in his method of teaching, no one would have predicted for him the great part he afterwards played in the development of American medicine.

Dr. Welch's work at Bellevue was merely a prelude to his life work which may almost be said to have begun in the founding and development of the Medical School of the Johns Hopkins University. This became the theatre of the big four group, in which Dr. Welch played so conspicuous a part.

To you who can visualize medical conditions as they were at the time when I was graduated, it is possible to understand the great development that has

occurred in the last fifty years. The four men, Welch, Osler, Halsted and Kelly, who lent their prestige to the founding of Hopkins, created an ideal that will last as long as science endures.

It is not too much to say that no institution in America has done as much as Hopkins to elevate the standard of medical teaching and to create in the minds of the profession a desire for the highest aims and aspirations.

When we look in retrospection over the last one-half century, when we think of the achievement of men like Welch, Gorgas, Carroll, Reed, Lazear and Noguchi, we get some idea of what has been accomplished.

We of the South remember the yellow fever, we remember when New Orleans knew its visitation, when its banks were closed, its Chamber of Commerce silent. No traffic was upon its streets, no trains left the city. The ships were idle at its wharves. Armed guards patrolled every outlet from New Orleans. The dreaded scourge of yellow fever was in complete control. Those who were immune to the disease drove the death wagons at night calling, "Bring out your dead." And every night there seemed to rise above the city the figure of death pointing its finger at the stricken place and saying, "This is my domain, here I rule supreme."

When the work of Lazear, Carroll, Reed and Agramonte made possible the solution of the mystery of yellow fever, New Orleans remained the great commercial queen of the South, situated upon the Mississippi, "going mile wide to the sea." Trains going to all parts of the continent, laden with her merchandise, Chambers of Commerce open, business houses engaged in traffic. No fear now. Ships going from her wharves to Central America, to the South, East and West. Ships going wherever winds blew and water was found to float them.

In Jackson Square is a monument to General Jackson. Underneath is the inscription "He saved the city of New Orleans." No monument to Lazear and Carroll and Reed and Agramonte, who made possible the prosperity and the happiness that now exist there. Of all the splendid pages in our history, none

more inspiring than this one. In these triumphs Dr. Welch and his co-laborers were a part.

Let us join, therefore, in silent tribute to the memory of these men and to the memory of this man whose birthday we celebrate.

Life contains no greater glory than the universal tribute that we pay today. Someone has said, "Life is an orange; squeeze it dry."

Let us so live, that when the Angel of Death shall come, we can say to him, "You are welcome to the peel."

AT THE PORTLAND LUNCHEON

Given Jointly by the Oregon Social Hygiene Society and the Portland City and County Medical Society, Portland

NORMAN F. COLEMAN
President of Reed College

IN reply to your inquiry of the nineteenth, I wish to report that in my address at the dinner in honor of Dr. Welch I spoke first of his long connection with the social hygiene movement and his official relation with the American Social Hygiene Association. I spoke of his being one of a distinguished group of medical men who had pioneered in this movement and who had shared in widespread popular education for the prevention of venereal disease. I referred to the fact that on the present occasion the unprecedented cooperation between medical men and social workers and educators was resultant of this enlightened leadership.

The rest of my remarks passed in review the progress of the social hygiene movement since the opening of the World War. I recalled the fact that less than fifteen years ago prostitution was recognized as a regular accompaniment of military organization, and medical men were largely content with periodic inspection for the curbing of venereal disease. I spoke of scientific investigations conducted in army camps and of the changed policy adopted. As a result of this investigation venereal disease was largely prevented by the prevention of social vice.

Finally I called attention to the fact that the social hygiene movement of the present day is concerning itself with family life and the care of children, in order to develop attitudes and judgments that shall lead in the direction of wholesome sex practices. I rejoiced to know that distinguished and enlightened medical men, such as Dr. William H. Welch, were supporting and encouraging and guiding this progress toward a larger measure of public health.

NORMAN F. COLEMAN

AT THE PORTLAND LUNCHEON

RICHARD B. DILLEHUNT
Dean of the Medical School of the University of Oregon

A TABULATION of all the steps in the progress of the healing art from black magic and mysticism to a system of application of all the resources of fundamental sciences to the human organism in health and in disease, would reveal numerous epochs, each of which surrounded the illustrious name of a single thinker of his time, whose contributions gave rise to modification of opinion and practice. It might begin with Hippocrates and would have to include Galen, and Harvey, Paré and Pasteur, Hilton and Hunter and Jenner and Lister and others innumerable. In each of these instances the progress of medicine in the particular era was indissolubly linked with the name of a commanding figure. And so it is with the recipient of our congratulations and expressions of homage today upon his 80th birthday, because no other contemporaneous name in American medicine nor even in that of Europe can be looked upon as being to such a degree synonymous with the progress of medical science of the last fifty years as that of William Henry Welch.

One is impressed by the fact that during that brief span the fundamental changes wrought far exceed in number and importance, implications, applications and benefit to the human race, any previous period ten times as long. In the complexity of modern life with the bewildering rapidity of change incidental to invention, research, the substitution of machine for human effort, shifting of values, and so forth, there are those who pause to question whether or not any real fundamental progress is being made in anything; and some express misgivings anent the trends of science, business, law and government, religion, education, the arts, philosophy, and the pursuit of national and international peace. Quoting freely from C.-E. A. Winslow in Charles Beard's

"Whither Mankind," "to such, cold figures must be revealed"; and as far as progress in the pursuit of health is concerned during the recent period, they are incontrovertible and demonstrate that no matter what the reason, the human race is healthier than it was fifty years ago.

The life expectancy at birth in 1880, where figures are available in England and the United States, was 41 years. In 1925 in the United States the expectancy was 58 years, an increase in probable span of 17 years. The cynic in argumentative mood may decry this record as a result of medical progress and attribute it to biologic, social, natural or environmental factors alone, but analysis of the causes of death contributing to these figures answers the query. In 1880 in a given area typical of the United States the death rate from all causes was 1820 per 100,000; in 1926 it was 1250, a decrease of 570 per 100,000. Comparing the two periods, the rate for pulmonary tuberculosis dropped from 282 to 41; diphtheria, from 124 to 5; typhoid fever, from 47 to 5; scarlet fever, from 40 to 2; infant diarrhea from 105 to 19. These five causes alone account for a decrease of 526, or 92% of the total decrease from all causes. Ignoring the remaining 8% decrease, it is manifest that typhoid was controlled by pure water supply, pasteurization of milk and vaccine; diphtheria by antitoxin and toxin antitoxin; scarlet fever by isolation and, lately, serum; diarrhea by pasteurization of milk and insistence upon breast feeding of infants. In tuberculosis the sharp fall in death rate began in 1890, when the intensive anti-tuberculosis program commenced and not before, and it did not occur in countries where no organized anti-tuberculosis campaign was inaugurated. Thus, including such causal factors as improved living conditions and economic state, which after all represent the effects of science upon human life, credit must be given to the progress of medicine for the decline in death rate and prolongation of life through the application of seemingly simple measures born, however, of laborious toil in ferreting out causes and relationships, in the laboratories, hospitals, camps, and schools of medicine.

The implication of this fact alone, dreary as figures are, is not appreciated at

all. It means that one-third of the burden of disease existing fifty years ago has been removed from the human race. It is not only a quantitative value. For every case of death from all these causes fifty years ago there were many afflicted who did not die but who carried the scar of disability for life. Prevention of these exceeds in value the prevention of deaths, for the association between mortality and disability is intimate and inseparable. It has been well said that the individual who dies from a certain disease is but one member of a group suffering from crippling wounds due to the same cause. Removal of the cause saves that whole group from crippled lives. There is every reason to believe also that the prolongation of the average life by ten years tends to advance to the man of 60 the vigor of the man of 50 of the former period.

It must not be gainsaid that the delivery of the benefits demonstrated by medical science and their application has been immeasurably enhanced by popular education, lay organizations interested in specific phases of health dereliction, and organized public health programs of committees, in each and all of which Dr. William Welch has participated effectively.

The lifetime of the leader we are here to honor has seen the development of anesthesia, the discovery of bacteriology, the establishment of aseptic surgery, the conquest of malaria, yellow fever, typhoid fever, hookworm, diphtheria, the amelioration of tuberculosis, pneumonia, pernicious anemia, diabetes and an interminable list of disorders amenable to medical and surgical management, the beginning of a great movement to prevent and relieve and cure that horde of maladies attributable to psychic influences and approachable through psychiatric and social ministration. His life has witnessed the making over of physiology, the application to an incredible degree of chemistry, biology and physics and control of disease and the establishment of diagnosis and in a great measure treatment upon the sound basis of pathology. It has seen the transition of the practice of medicine from a simple art to an increasingly exact science; the development of the hospital from an institution of custody for the hopeless to a place of scientific study, relief and cure; the expansion of

medical education from a dull, technologic, uncultured mechanism to a refined institution of learning, research, and training; the evolution of medical science as a mode of treatment and relief alone into a public servant engaged in the prevention of disease to such degree as its knowledge enables.

Rapid, complex and overwhelming as has been the progress of medicine, so protean has been Dr. Welch in his interests and labors that he has been in the vanguard of practically every outstanding movement for the betterment of medicine for forty years. His papers and addresses published in 1920 upon the 70th anniversary of his birth by his associates and pupils fill three great volumes touching a range of subjects incredible in their variety, and only by its study can one appreciate the extraordinary scope of this good man's work. Simple enumeration of the more than 400 titles would consume many pages. The contributions in pathology alone would have secured a perpetual place in the sun of scientific research. Similarly the studies and presentations in preventive medicine constitute a creditable life's work for any single individual. A chemist, physiologist, bacteriologist, pathologist, deeply interested in and engaged in research, he was not too busy to leave his laboratory, desk and microscope in the interest of child welfare, social hygiene and public health in its broadest phases.

Perhaps the most far-reaching benefit conferred upon the people of the United States by this full life is the effect of his leadership in medical education. When, as Professor of Pathology at Johns Hopkins Medical School, he was summoned as Dean of the Medical School, medical education in this country could hardly have been said to be upon an exalted basis. He had already inaugurated in his organization of the department of pathology a new era in scientific medicine but upon assuming administrative duties revealed talent equivalent to his scientific attainments. He assembled a group, Osler, Halsted, and Kelly, who with himself constituted a galaxy such as had not been witnessed since Edinburgh boasted of Lister and Simpson and Syme. Henceforth medical education was established upon a basis equal to European

tradition. Universities could cease apologies for their medical schools, for the faculties in medicine lost their sequestered and provincial characters, becoming integrated as a university group co-equal with other sciences and professions. Moreover, thenceforth aspirants to the field of medicine were to exhibit some cultural background and possess fundamental knowledge in physical, biologic and chemical sciences and foreign languages, a departure from the past so complete as to deserve designation as a revolution. With this example at hand, Dr. Flexner's survey for the Carnegie Foundation and the persistent urge of the American Medical Association closed fifty per cent of the medical schools of the United States, merged twenty per cent into others, and made over practically all the survivors in the course of twenty years.

It may be fairly said that modern medical education began in America in 1893 at Johns Hopkins Medical School, and upon its model have most schools striven to mould their futures. So eminent was his leadership in medical education that he soon became adviser to innumerable other institutions and foundations and his work has perhaps inspired more gifts and benefactions for medical education and research than that of any other single individual.

As a teacher his influence is inestimable. His department became the Mecca for those striving to the highest in pathology, and he inspired in the undergraduate student the loftiest ideals. For a student at Johns Hopkins Medical School not to love "Popsy Welch" is to argue himself *ipso facto* unfit.

As was to be expected, when the World War came he hastened into the service; distinguished himself therein and distinguished the service by his presence. He had drilled as a boy on the village green and was Captain of a company of Zouaves in his home town of Norfolk at the end of the Civil War. He was made Brigadier General in the Army Reserve Corps in recognition of his services in the last war.

As director of the School of Hygiene and Public Health of Johns Hopkins he immediately established that unique conception upon a basis of highest order that made it exemplar for subsequent similar schools.

Upon assumption of the honored Professorship of the History of Medicine at the age of 76, he entered upon his duties with unabated energies, and to his glory the magnificent William H. Welch Medical Library was dedicated in 1929.

With all these scientific, administrative, public and other duties he was never too scientific nor too busy to possess and live spiritual values of the noblest order. He never denounces or jibes; he always smiles and perfuses the atmosphere with generosity and optimism and subtle induction and now at 80 plies his labors as ever.

A full life indeed, and one under which the vascular system of most men would have long since cracked, but his sturdy constitution guarded by clean living, placidity and equanimity of temperament, and his faith in and love for his fellow men have preserved him to the edification of our profession, the benefit of mankind and the glory of God.

AT THE DINNER IN LOS ANGELES

Given by the Southern California Public Health Association

ANDREW STEWART LOBINGIER

President of the Pacific Coast Surgical Association

WE are met here to honor a great American. For more than fifty years he has been a distinguished leader in the scientific life of the world. The tribute we offer here to his good and useful life as scientist and citizen, will be echoed tonight in twenty other world capitals.

William Henry Welch descended from a long line of earnest-minded New England forebears, many of whom were physicians of distinction. Very early in his life he showed the purposeful intent to qualify himself for a great career by carefully laying the foundation in a classical academic training. It was the natural thing for him to select Yale for his college. Others of his family had gone there. And when he finished his collegiate preparation and had determined to follow in the footsteps of his father and grandfather and become a physician, Columbia, in its College of Physicians and Surgeons, presented to him the most attractive course of study. It was there in 1875 in the great American metropolis that he took his degree in medicine with honor.

Very early in his student life he disclosed an unusual interest for scientific investigation and research; and the larger opportunities offered in Europe, then stirred by a great scientific awakening, beckoned him to the Continent.

Fortunate indeed was any student of medical science with the glowing ambition of a William Welch, to find himself suddenly in this golden age of discovery. It was that magic decade of revelation from the middle 70's to the middle 80's, when Pasteur, Lister, Cohnheim and Koch spread before an amazed and doubting world their thrilling discoveries.

Avid for this wider horizon of learning, we find him first in Strassburg, a city which for centuries had been an outstanding center of learning. The cele-

brated masters in chemistry, physiology and pathology whom he met there left their imprimatur of authoritative instruction ineffaceably on this young American.

Waldeyer, Hoppe-Seyler, Baumann and other equally noted teachers, composed a faculty in medicine at that time not surpassed anywhere in the world. In this first visit he must have spent most of his time at Strassburg, Leipzig, and Breslau. No doubt he stopped briefly at Heidelberg, but after Strassburg we hear of him with Ludwig at Leipzig and there he must have met the great Langerhans, although this illustrious histo-pathologist was then advanced in years.

At Breslau he found in Cohnheim a most suggestive and stimulating instructor. The personality of this brilliant teacher of pathology had drawn to him some of the brightest young men of promise in his day. He was not as widely accepted an authority as Virchow nor had he Virchow's unchallenged distinction as a *Geheimrath*. But Cohnheim's colleagues and students were ardently devoted to him and many of them, as Ehrlich, Weigert and he whose natal day we celebrate, did singular honor to this master.

Cohnheim's rare investigative mind in pathology—a science he was developing experimentally at Breslau—disclosed a genius for originality unequaled by any other research worker in this field in Germany, even by Virchow himself.

What he saw and learned at Breslau in that day when differential staining of tissues with aniline dyes gave such an impetus to the science of pathology and bacteriology, created in the mind of Dr. Welch a desire for wider observation in these fields of study. Robert Koch's Institute in Berlin was the magnet that drew him there, where great events in the culture and staining of pathogenic organisms were transpiring. Equally epochal events were taking place in Paris in the Pasteur Institute, an institution which is dedicated to the enduring beneficences of its immortal founder. Who can ever measure the inspiring influence of Pasteur, that rarest master? A nobleman of our guild

once said of him: "He was the most perfect spirit that ever entered the Kingdom of Science."

What thrilling days were those in 1885! On the 6th of July of that year Pasteur had announced that he could immunize dogs against rabies. This immunization was positive both before infection and during the latent period after infection; and he had treated his first patient.

We know that Dr. Welch was on the Continent that year. Can any one doubt what were his emotions at this amazing announcement? A few months later England sent to France the most distinguished committee that ever left her shores on any scientific mission, to report on the verity of Pasteur's claims.

The chairman of that commission was Sir James Paget and its personnel the illustrious Lord Lister, Sir Lauder Brunton, Sir Richard Quain, Sir Henry Roscoe, Sir John Burden Sanderson, and Sir Victor Horsley, its secretary.

We cannot venture to mention how many of these stars in medical research in England became the close friends of Dr. Welch; but we may venture to say there is little doubt his resourceful mind found a delightful unfolding in the warm and genial atmosphere of their distinguished presence.

Returning to America after two extended periods of study abroad, he was eminently fitted to teach, as no other in our country could, the great subject of pathology in a school of medicine. First we find him from 1878 to 1884 in Bellevue Hospital Medical College. Then Professor of Pathology at Johns Hopkins from 1884 to 1916. He was one of the five founders of this great medical faculty and was its dean for years.

Honors began coming to him now in crowding numbers. They came from colleges and universities in all parts of the world; honorary memberships in the leading associations of his own special and of cognate sciences, honorary degrees from the principal universities of this and foreign countries.

Amidst it all he was ever the gentle, modest man of science, wearing his fine honors with that quiet dignity which has distinguished him.

Director of the School of Hygiene and Public Health at Johns Hopkins;

president of the Maryland State Board of Health; president of the Rockefeller Institute for Medical Research; member of the International Board of Health and China Medical Board of the Rockefeller Foundation; trustee of the Carnegie Institution; president of the National Academy of Sciences and builder and founder of the William H. Welch Medical Library—these and scores of other responsible offices the illustrious American has filled with a distinction such as has no other contemporary citizen in science.

Whilst we lay this wreath of admiration at his feet, we are impressed with the conscious knowledge that none amongst us has so much contributed to the health, happiness and welfare of American life. His inspiringly suggestive research in yellow fever, malaria and other communicable diseases, his vast contributions in the field of public health, his helpful counsel in the crises of our national life when our government was sorely in need of the direction of a master mind in epidemiology and sanitary science, and an authentic survey of our scientific resources—these and a hundred other efficient services which he administered with authoritative and executive ability have placed Dr. Welch amongst the world's very greatest in philanthropy and service.

We are too near the theater of his activities to adequately appraise the magnitude and scope of this teeming half century of scientific labor. But we shall look in vain in our search for a figure in contemporary science, whose brilliant achievement in the preservation of human life, whose masterful contribution to the growth and development of medical education, whose renown in the advancement of medical research, preventive medicine and public health has been comparable with that of William Welch.

Amidst all the glowing tributes which are coming to this noble American from all the world tonight, amidst the plaudits and encomiums which come streaming from every quarter of the earth to acclaim his beneficent life and labors, I love most to think of him as the quiet, gentle teacher, who has taught us the grace and charm of the pupil's adoration of the master, the sanctity of a life in science and the beauty of a love for one's fellow man.

To William Henry Welch.

Greeting.

We, the President and Fellows of the Royal College of Physicians of Ireland eagerly grasp the opportunity of joining in the universal expression of good will towards you which the auspicious occasion of your eightieth birthday has evoked.

We have watched with admiration the fruition of two great departments of learning which were founded and fostered by your skill and care; and we look forward with confidence to an equal success in the new undertaking to which you have just now put your hand.

Although we have not the privilege of personal intimacy with you, we claim the result of your work as a part of our heritage which has won for you our respect and homage.

The Great Hippocrates has charged us ἡγήσασθαί τε τὸν διδάξαντά με τὴν τέχνην ταύτην ἴσα γενέτῃσιν ἐμοῖσι καὶ βίου κοινώσασθαι

and gladly do we fulfil his command.

In the spirit of homage to one who has raised for himself so high a place among the workers of the world, in the spirit of pride in the splendid work which you as one of our fraternity have achieved, and in the spirit of love of you, a great teacher, we wish you health and happiness ad multos annos.

W. A. Winter

President

March 1930.

From the engrossed tribute presented to Dr. Welch by the Royal College of Physicians of Ireland, Dublin. The passage in Greek may be paraphrased: "The doctor should regard his instructor in medicine as having an equal claim with his parents upon his esteem and affection." The signature is: W. A. Winter, President.

ALLEGHENY COLLEGE LIBRARY

AT THE LONDON SCHOOL OF HYGIENE

SIR ANDREW BALFOUR

Director of the School

This lecture, given at the London School of Hygiene and Tropical Medicine of the University of London, was illustrated by lantern slides showing pictures of Dr. Welch, some of his European teachers, one or two of his associates at Johns Hopkins, a number of his pupils, the William H. Welch Medical Library, and other buildings at Johns Hopkins.

I HAVE noticed that there exists a type of human eye which, for want of a better name, I may call a limpid or translucent blue eye and which seems to me to be associated with great mental vigour and ability. More particularly I recall its possession by three men, of whom two are dead and one is living. Of the former I knew one personally, the other only as he appeared in a portrait. The first of these twain was Sir William Turner, Professor of Anatomy in the University of Edinburgh and then Principal of that University, an Englishman of comparatively humble origin who, unaided, attained high academic distinction and lived to hold the whole of a Scottish University in the hollow of his hand. The second was an American, for it was when ascending the staircase at the Capitol in Washington that I came upon the portrait of that remarkable being, said by some to be the greatest man who ever lived, Alexander Hamilton. The painting, a fine one, successfully reproduces the translucency of his blue eyes as well as the look of keen intelligence which doubtless characterized the face during life. The man, happily still alive, who shares with Turner and Hamilton the possession of a limpid blue eye and also beyond doubt, some of the great mental qualities they possessed, is also an American, William Henry Welch, in whose honour we are met today. This is his eightieth birthday and in his own country, and especially in its capital, many men have assembled to do him honour.

It is not by any means the first time that his compatriots have testified their

warm appreciation of his great qualities. In 1910, when Professor Welch was elected President of the American Medical Association, he was the guest at a great and impressive banquet in Baltimore. It was attended by a company of about four hundred and fifty men and women, and though the proceedings did not terminate until one o'clock in the morning, it is on record that no one left until the end.

Many distinguished scientists were present, and fine tributes were paid the guest of the evening by Dr. Thayer, Dr. Jacobi, Dr. Councilman, General Leonard Wood and others, while Dr. Weir Mitchell recited a poem in his honour and he was presented with a gold medallion. A cartoon drawn by Dr. Max Brodel of Baltimore was distributed. It bore the legend "Some Welch Rabbits" and, as you will see, showed the genial professor driving a team of rodents in the shape of transformed pupils and fellow-workers, men he had guided and inspired, men who were his friends and who felt for him that reverence and affection which he had, and happily still has, the power of quickening in those with whom he is brought closely into contact. Amongst these rabbits you will see the distinguished clinician Thayer, Simon Flexner, the Director of the Rockefeller Institute, Councilman, the protozoologist, MacCallum, the pathologist, Nuttall, the parasitologist and Director of the Molteno Institute at Cambridge, together with others whose names are not perhaps so well known on this side of the Atlantic, but who were all men of mark. It is twenty years since Welch was thus fêted in the city with which he has been most intimately associated, but even though he was then sixty, the respect in which he was held, the admiration which he excited and the affection which he inspired have steadily increased until, on his eightieth birthday, they have culminated in a great expression of homage in which not only members of his own profession, but all classes of the community, from the President of the United States to, we may be sure, the humblest laboratory assistant, have joined to testify to his gifts and virtues as a man, as a citizen, and as a scientist.

It is clear that there must be something very remarkable about the person-

ality and character of one who, at an advanced age, after living much in the public eye, after long association with medical and scientific circles, after holding many and varied posts, can evoke a demonstration so spontaneous, so wide-spread, so obviously sincere.

Moreover, this demonstration is not confined to the United States. William Welch has an international reputation and I think it likely that in every country where he and his work are known, at least in every country which he has visited, tributes will be paid him. Moreover, there will be no discordant note. It has been said that Welch was never known to speak evil of anyone and I cannot imagine anyone speaking evil of him, for the man has a heart of gold.

No wonder then that Dr. Thayer concluded his oration at the Baltimore banquet with these words:

> "Your greatest work lies in the personal example which you have set to the hundreds of students who have passed under your care. You have taught us a religion of earnestness and simplicity and directness—a religion of charity and self-restraint, a religion of work, not of words. You have helped us to love truth for truth's sake, and, above all, you have spread far and wide that enthusiasm without which all effort is vain.
>
> "We honour you for your achievements! We respect you for your learning! We love you for yourself! And one and all we greet you here tonight, lovingly, gratefully and happily, as master, teacher and friend."

I have quoted these passages because they seem to me most admirably to indicate the outstanding feature in Welch's career, his magnetism, the result of all those qualities which the toastmaster enumerated.

Such an eulogy might well have upset the balance of its recipient but, along with many others, I can testify that Dr. Welch has, despite it, preserved his attractive simplicity, modesty and kindliness. He has remained courteous and charitable. Some men mellow with age, but Welch, I think, must have been born mellow and his mellowness has merely ripened with the years and with experience of men and affairs. I have never met anyone quite like him, for the

possession of a translucent blue eye does not necessarily signify the presence of those attributes which endear William Welch to his fellow-men.

But it is time to consider his career. It has been so full and varied that only an outline of it can be given here, but this will serve to show in what directions his interests have chiefly lain and through what channels his influence has been exerted.

He was born in Norfolk, Connecticut, on 8th April, 1850, the son of Dr. William Wickham Welch and Emeline Collin. His grandfather, his father, and four of his uncles were physicians. After attending a boarding school at Winchester Center, he received his University education at Yale, which he entered at the age of sixteen and where he graduated with the degree of A.B. in 1870, being placed third in a class of one hundred and eleven. The Classics at first allured him and he taught Latin and Greek for a year in a school at Norwich, New York, but his heart was in medicine, and in 1871 he matriculated in the College of Physicians and Surgeons, New York City. Scarcely, however, had he settled down when his astute mind perceived that he needed a more thorough grounding in science and he returned to Yale to study chemistry in the Sheffield Scientific School and also to take some courses at the Yale Medical School. There he met Prudden who, like himself, was to do so much for pathology in America.

A year later Welch returned to the College of Physicians and Surgeons in New York, where he became keenly interested in anatomy and where he gained a prize in the shape of a microscope, a somewhat uncommon instrument in those days. It stood him in good stead when he began his studies in the new pathology.

After holding a house appointment at the Bellevue Hospital and grasping every opportunity to familiarize himself with post-mortem work, Welch proceeded to Europe, where he studied in Strassburg, Leipzig, Breslau and Berlin from 1876 to 1878. At Strassburg, in addition to attending autopsies, he devoted himself to normal histology and physiological chemistry, his teachers

being Waldeyer, Hoppe-Seyler, Baumann and the unorthodox von Recklinghausen, who was still to the fore when I was a student at Strassburg in 1901–2. At Leipzig he studied pathological anatomy and medicine and worked in Ludwig's laboratory, gaining much insight into microscopical technique. Breslau came next, and there he had the great advantage of being associated with Julius Cohnheim, that eminent experimental pathologist, a pupil of the great Virchow and one of the most brilliant investigators of his day. Under his direction Welch carried out an able piece of research on acute pulmonary œdema.

It is on record that, when the young American was at Breslau, Koch, who had still his spurs to win, visited Cohnheim to explain his work on anthrax and Welch heard Cohnheim's prophetic remark, "There is a great man of whom we shall hear much in the future!" It is therefore not surprising to find Welch a few years later attending Koch's first course in bacteriology in Berlin. There can be no doubt that the knowledge he there gained was of very great service to the cause of that new science in the United States.

Leaving Germany, Welch proceeded to Vienna, where he remained several months, and then went back to von Recklinghausen at Strassburg. At the Pasteur Centenary in 1922, there were great doings at Strasbourg, which, of course, had reverted to the French. Welch was there and I also had the honour to be one of the guests.

An amusing incident happened, as the gaily caparisoned company, in brilliant academic robes and hoods, sat in the open facing the memorial to Pasteur. A blundering bumblebee, evidently thinking it had struck an herbaceous border, came questing down the line of scientists in front of me and eventually lit upon a bright yellow hood, from which it apparently made a vain attempt to extract honey. Welch was seated immediately behind me and, on comparing notes later, I found he had also been fascinated by the bee and, like myself, thought he had noticed a disappointed look in its eyes after its fruitless, or should we say juiceless, onslaught on the academic yellow! I have no doubt

he still remembers this little episode, for we had a hearty laugh over it the last time we met.

His first European tour embraced visits to hospitals in Paris, and he made a short stay in London, where he heard Lister lecture at King's College. His experiences in Germany exercised a great influence upon his career, especially in so far as pathology was concerned for, at that time, Germany in many ways led the medical and scientific world. By his work there he found himself holding a unique position on his return to America where, after a brief period spent in practice and in coaching, he was appointed in 1879 professor of pathological anatomy and general pathology at Bellevue Hospital Medical College, New York. He had previously been offered a lectureship in pathology at his old school, the College of Physicians and Surgeons, but had declined it because there was no laboratory. At Bellevue, which provided him with a laboratory, he taught with great success the new principles and methods which he had studied under Cohnheim and Koch until, in 1884, a great opportunity was vouchsafed to him. He was translated to Baltimore where, in the Johns Hopkins University, he became Professor of Pathology and Pathologist to the Johns Hopkins Hospital.

At once he decided to prepare himself for his new duties by a further course of study in Europe. Accordingly he went to see Koch and Koch sent him to Munich to work under one of his pupils and also to sit at the feet of the great hygienist von Pettenkofer. Doubtless it was here that his lifelong interest in health problems was aroused, an interest soon to be shown by his writings and the posts he held. He was further stimulated by work under Flügge at Göttingen and not until he had obtained a sound grasp of hygienic principles did Koch summon him to attend his course and incidentally to see something of the research which revealed the vibrio as the cause of Asiatic cholera. He returned full of new knowledge and threw himself whole-heartedly into the teaching of pathology at Baltimore, the while he was busy advising as to the development of the Medical School. In the year 1893 he became Dean of the

Johns Hopkins School of Medicine, being the first to hold that position, and there can be no doubt that it was very largely due to his ability, wisdom, tact and high ideals that this School soon became world-famous. While he helped to develop the School along new and sound lines he so organized his laboratory that it became a Mecca for would-be research workers in the United States and Canada, and at the same time his teaching on pathology exercised a powerful influence upon his students, for teaching was his forte. He had no difficulty in keeping abreast of developments in his subject, being greatly aided in the acquisition of new facts by his knowledge of German and, as his wide knowledge and critical faculty enabled him to separate the chaff from the grain, it is not surprising that, with his wonderful memory and his facility for imparting knowledge without obvious effort, he soon gained the reputation of a great expositor.

He spoke well and he wrote well. Like his lectures, his writings are marked by clarity, an easy flow of language, sound reasoning and, as someone has said, an all-pervading sanity. But he was not only a teacher. He was a patient and careful investigator, more especially in the realms of pathology, and it is conceivable that, if he had not become such a man of affairs, so notable an adviser on medical and scientific matters, so renowned a leader in various progressive movements, his output as an original worker would have been much greater. Even so, he has to his credit important studies on embolism and thrombosis, on glomerulonephritis, on hæmorrhagic infarction, on the pathology of fever, together with other observations ranging over a wide field, some made by himself, others in collaboration.

In bacteriology he also made some contributions of value, such as his differentiation of the white skin staphylococcus from staphylococcus albus, and his demonstration of its relation to wound infection, the classical work with Nuttall on the isolation and description of the gas-producing organism *Bacillus ærogenes capsulatus,* sometimes called *Bacillus* or *Clostridium welchii,* and the research upon the histological lesions produced by the tox-albumen of

diphtheria carried out in association with Simon Flexner. The papers cited represent, however, only a fraction of his literary output. Welch has a fertile brain and a facile pen and, through the long years, has made many and varied contributions to medical literature in the form of textbooks, manuals, clinical papers, case reports, historical dissertations, essays on public health, articles on medical education, addresses at ceremonies of various kinds. He has indeed been amazingly prolific. In a bibliography published in 1917 there are three hundred and thirty-five separate entries, and it is astonishing to see the number of subjects with which this human dynamo, as he may perhaps be called, has been concerned. The year 1917 by no means terminated his activities in this respect and doubtless the bibliography will be brought up to date and remain as a monument to his literary labours.

But it is a far cry to 1917 from 1884, the year when he set his hand to the work at Baltimore, and much had been accomplished before he resigned the deanship in favour of Osler in 1898, and still more by the time he was given a new field of work and fresh opportunities when in 1916 he became Director of the School of Hygiene of the Johns Hopkins University which, like this School, owed its existence to the generosity of the Trustees of the Rockefeller Foundation. For ten years he held this post and aroused amongst his staff and his students an enthusiasm for public health work similar to that wherewith he had imbued those associated with him during his services to pathology.

The war, however, interfered to some extent with his duties. He entered the Medical Reserve Corps of the United States Army as a major in 1917 and was honourably discharged as a colonel in December, 1918. For his services he received the Distinguished Service Medal and was made brigadier general in the Officers' Reserve Corps in 1921. The School of Hygiene, one of the first of its kind in the world, was opened for students in 1918. It was dedicated in October, 1926. I had the honour and privilege of delivering the opening address and I shall not readily forget the outburst of applause which greeted the mention of the Director. Dr. Welch resigned the post shortly thereafter, but indefatigable

at seventy-six, at an age when most men who have survived so long are enjoying that *otium cum dignitate* which is the usual and often the sole reward of the aged and successful scientist, he accepted the new Chair of the History of Medicine in the University he had served so well. With characteristic and apparently unabated energy he threw himself into his new duties and began by making arrangements for the collection and housing of a great library of the history of medicine. The Medical Library, however, was not to be limited to historical works. It was planned as an independent unit of the University designed to accommodate the medical books and memorabilia of the School of Medicine, the School of Hygiene and Public Health and of the Johns Hopkins Hospital. In his search for books and manuscripts and literary treasures of all kinds he crossed the Atlantic, visiting this country and the Continent and as keen on the quest as a ferret on the trail of a rabbit.

Here we see him having a talk with Sudhoff, the greatest living authority on the history of medicine, and from whom no doubt Welch is extracting information which will be of value to him in his present post.

It was at this time he visited our building here, then in the course of erection, and I had the pleasure of taking him over it and answering, or trying to answer, his very searching and pertinent questions. Nothing seemed to escape his notice, everything seemed to interest him. As ever he was courteous and humorous as well as inquisitive and when he left I expressed the hope that he would return and have a look at the completed school in the full swing of its work. He said he would, if at all possible, and I, for one, sincerely hope it will be possible and that we may be given an opportunity of listening to Professor Welch in this very room.

The library named after himself was opened in October, 1929, and at the same time the Department of the History of Medicine was formally inaugurated by Professor Welch while Abraham Flexner and Karl Sudhoff delivered addresses. Already the library possesses 60,000 volumes and the building can accommodate 528,000. How proud and pleased must Welch have been to see

this most notable addition to the resources of the Johns Hopkins University!

I have said that Welch is humorous. That humour sometimes took an impish turn, for Welch loves a joke. Cushing in his life of Osler allows Welch to tell in his own words a trick he played on Osler when the latter was writing his famous text-book. Here is the quotation in full:

> "I have told the story so often that I really believe it. The circumstances were these: It must have been in 1891 or '92, and Osler who was then living on Monument Street had sent to the printer most of the manuscript of the 'Practice,' and galley proof was beginning to come in. He was closing his house, his books were packed up or covered or not readily accessible and he was about to leave for the summer, when he came to my room one evening about nine o'clock (I was living on Cathedral Street) and asked if he could look up the subject of ergotism, which he had discovered suddenly that he had forgotten in the 'Practice.' (You recall how he has something to say about everything in the 'Practice.') I told him not to bother, that I had been looking up ergotism and could give him the latest information. Taking a number of the *Deutsche Med. Wochenschrift* I pretended to read him a wonderful description of the disease with startling statistics of its prevalence in southeastern Europe and its relation to obscure nervous affections. He took a pad and jotted down the notes which I gave him. I recall that I gave him the figures for Roumania. He became greatly interested, said that he had no doubt that they were overlooking ergotism every day as a cause of obscure nervous diseases and that he would put Harry Thomas to work on it in the dispensary.
>
> "Off he went with the material for a beautiful article on ergotism, which would have immortalized the 'Practice.' I did not really expect him to swallow it but he did; and thinking it over I became uneasy, and early the next morning I confessed the hoax to him, and took him around a real article on ergotism. He never quite liked reference to the joke. It was not a very good joke and I am rather ashamed of it, but the facts really are as I have

The Royal Society of Medicine.

1, Wimpole Street
London, W. 1.

March 18th, 1930.

Sir,

It is twenty-five years since you accepted election as an Honorary Fellow of this Society, and now, on the occasion of the celebration of your eightieth birthday, we delight to send you through our Council our warmest congratulations and gratitude for all that you have done for Medicine during your long and devoted service to the healing Art.

It is given to few men to see the results of their work appreciated in their lifetime, and we rejoice that we are given this opportunity of expressing the sentiments of our four thousand five hundred Fellows, Members and Associates throughout the world.

Your work, Sir, is enduring and you have already the knowledge that many worthy pupils are following faithfully the paths along which your genius has directed them.

It is our wish for you, Sir, that the coming years shall see you in good health and happiness, and that the fruits of your labours and of those whom you have encouraged and helped shall be a constant source of joy to you.

We are, Sir,
Yours very sincerely,

Dawson of Penn ..... President.

E. K. Martin
George Riddoch ..... Honorary Secretaries.

Geoffrey R. Edwards ..... Secretary.

Dr William Henry Welch
807, St Paul Street,
Baltimore,
Maryland. U.S.A.

From the tribute engrossed on vellum and presented to Dr. Welch by the Royal Society of Medicine, London. The signatures are: Dawson of Penn, President; E. K. Martin and George Riddoch, Honorary Secretaries; Geoffrey R. Edwards, Secretary.

stated. Like most practical jokers Osler was easy to fool, or else he was so confiding that he did not think me capable of trying to fool him."

Osler and Welch were fast friends. In 1888 the Canadian captivated the American, as the latter admits, and it was largely due to Welch that Osler left Montreal for Baltimore.

Osler frequently paid a tribute of admiration to his colleague and Welch did homage to Osler, both during the latter's life and when, heart-broken by the death of his only son, he passed away leaving a great gap in the world of medicine. Welch's remarkable series of Cartwright lectures on fever Osler described as "an able and comprehensive study from a member of Johns Hopkins University, an institution the medical department of which may, we trust, give a stimulus to the advanced study of medicine and surgery in this country such as the sister faculties have already given to literature, history and science." Assuredly it did, and the stimulus was chiefly due to Osler and to Welch.

At a dinner in Baltimore in 1900 Osler pointed out how admirably Welch had organized his department of pathology and drew certain useful deductions therefrom with respect to the organization of medical teaching. Osler was delighted when in 1913 he learned that the endowment of the Rockefeller Foundation to the Johns Hopkins Medical School was to be associated with Welch's name. He wrote of him as follows:

> "No man of his generation in the United States has so deeply influenced the profession, not only by his administrative ability and his stimulating work in pathology, but much more by a personal, unselfish devotion to its highest interests."

Lastly, a few months before his death, in a letter to a correspondent, Osler, harking back to old days at the Johns Hopkins, wrote: "It was a great group. And what a mercy from heaven that such a man as Welch started the ball. It might have been so different. Think how he won over all the local people."

I show you a picture of the famous Sargent portrait of Welch, Osler, Halsted

and Kelly, the original of which I have seen in Baltimore. Osler, writing about it, said: "Welch is wonderfully good. You can see his strength as a halo."

Welch in his turn was no less appreciative of Osler. In presenting him for the degree of LL.D., he spoke of him as "the chief ornament of our Medical Faculty," while, after his death, in an address given at Johns Hopkins, when speaking of the inspiring and stimulating character of Osler's teaching, he said:

> "I doubt whether the history of medicine records a man who had greater influence upon the students that came under his teaching. He inspired them with a remarkable devotion and loyal affection. He was their example. His life embodied his precepts, and his students cherished his words: 'Cultivate peace of mind, serenity, the philosophy of Marcus Aurelius. Think not too much of tomorrow, but of the work of today, the work which is immediately before you.'"

Again, when recalling Osler's election as President of the British Classical Association, he wrote delighting in the honour paid his friend, and himself paid a tribute to Osler's scholarship and character in some fine passages which Harvey Cushing duly records in the "Life," but which are too long for quotation here.

We have seen that Welch's academic career was, like all Gaul, divided into three parts, the first and largest when he taught pathology and worked at its problems, the second when he directed the fortunes of the School of Hygiene, the third and present phase when he occupies the Chair of the History of Medicine. This sketch would, however, be woefully incomplete if it did not chronicle some of his other main achievements. He rendered a great and lasting service to his native land and to medicine generally by the part he played in the movement which placed medical education in the United States on a very different pedestal from that which it occupied when he began his work as Dean at the Johns Hopkins School of Medicine.

In those days many of the American medical schools were hopeless places.

The conditions in not a few of them were about as bad as they could be and the profession and the public suffered accordingly. Welch, always averse to the lime-light, a quiet but thorough reformer, had much to do with the scheme which brought the evils into the light of day, not in any startling manner but in a way which had the desired effect. Abraham Flexner's report revealed the iniquities of the system and the schools themselves did the rest. The worst of them eliminated themselves, the mediocre improved themselves, the best criticized themselves and the deed was done! It was fine strategy and Welch was behind it.

For twenty-four years he was President of the Maryland State Board of Health, and people who know say that it was largely due to him that the city of Baltimore put her sanitary house in order. If so, he must be credited with having indirectly saved the lives of thousands of his fellow citizens, for at one time Baltimore was a focus of typhoid fever and of other preventable diseases. Moreover his sage advice, his wise counsel on public health matters have been sought by many persons, from Presidents of the United States downwards, who were faced with problems of preventive medicine.

Of special interest to us here is the occasion when Dr. Welch headed a delegation of doctors to interview Theodore Roosevelt. The Canal Treaty with Panama had been ratified by the Senate early in 1904 and the President was to appoint seven members of the Isthmian Canal Commission—an army officer, a naval officer and five engineers. The duty of the delegation was to impress upon the President the necessity of making Gorgas, then a major, a member of the Commission, so that medicine and sanitation might be represented thereon. Roosevelt, who was obviously in sympathy with their arguments, spoke very frankly and explained how his hands were tied by the legislature. Accordingly Gorgas went to Panama in a subordinate capacity and was, to put it plainly, downed by the engineers. He was hampered and hindered, and as a result disease and death got opportunities which should never have been accorded them. It was not until later and not until the graves of unnecessary

victims testified to the folly of the policy adopted, that Roosevelt himself visited Panama and put things right. It was then that the President wrote to Elihu Root, his former Secretary of War, and told him that if there were only more unselfish and public-spirited men in the country, like Welch and Osler, willing to advise him, his executive life would be simplified.

The Panama business must have been specially interesting to Welch, for the chief foes to be fought were malaria and yellow fever. As a pathologist, he had studied malaria and had followed the revelations of Laveran, the reasonings of Manson, the discoveries of Ross, the researches of the Italian observers, the findings of his own pupil, MacCallum. Reed and his colleagues, who together solved the mystery of the transmission of yellow fever, were amongst his earliest students and it was with another of the band, Sternberg, that Welch planned the campaign which resulted in the triumph at Havana. Truly it may be said of him that he has lived to see the work of his hands established upon him.

Other activities which may be chronicled are his defence of the experimental method in scientific work, the part he has played in the anti-tuberculosis campaign in the United States, his association with the Rockefeller Foundation, his Presidency of the Historical Club of the Hopkins Staff. In connection with this last interest it should be noted, as exemplifying Welch's mastery of any subject to which he devoted himself that, at one of the evening meetings held in the McCoy Hall of the Hopkins University at the time of the Centennial of the State Faculty of Medicine, when certain speakers failed to put in an appearance, Welch rose to the occasion, in more senses than one, and gave an extemporaneous address on medical history as represented by the exhibits in the hall, exhibits for the collection of which he and Osler had been in the main responsible.

Welch has ever been essentially a wise man and a man of peace—where peace could be had with honour, not otherwise. He was not to be drawn into unprofitable discussions. A good example of his method is shown in the cor-

respondence which in 1902 took place between him and Eliot, the famous President of Harvard University, who wanted him to give one of the series "Lectures on Immortality" associated with the Ingersoll Foundation, obviously a thorny subject. Welch replied that, so far as he could see, science had nothing to say upon the subject of immortality. Eliot answered that this was just what he wanted him to say, to which Welch rejoined that it would not be possible to fill an hour in saying so.

Dr. Welch has been a traveler, not only in his own huge country, but abroad. We have seen him on the Continent. During his last visit, when buying books for his library, he was in Italy and served as a member of a committee to inspect the measures taken to control malaria in that country. But he has ranged farther afield and twice reached "far Cathay." In 1921 he went to China to attend the formal opening of the Peking Union Medical College and I am able, thanks to Professor Leiper, to show you two pictures, one taken at Vancouver, the other at Peking. He is with a group of delegates at Vancouver and, as you will see, is smiling on them in his fatherly way. At Peking the group contains others besides delegates but Welch is in the center, an honoured leader.

His last visit to England was in the spring of 1928 when he attended the Harvey Tercentenary celebrations and spoke at the Royal College of Physicians on behalf of all American medical institutions. With two of these he still remains closely associated, for he is Chairman of the Advisory Council of the Milbank Memorial Fund, which deals with public health, and President of the Board of Directors of the Rockefeller Institute for Medical Research. A grand old man indeed and one who has founded a great and a fine tradition which stands for much in Medicine, not only in America and Canada, but in other lands.

Yet he would be the last to regard himself as worthy of special praise for all he has accomplished. In 1910 at the Fortieth Reunion of the class of 1870 at Yale, he said to his classmates: "Now you have been much too generous in your estimate of the little I have been able to do. It is an estimate due to your friend-

ship. The explanation of whatever success I may have attained is simple enough. It is simply because I had the opportunity. There was a desire for a broader medical education. I had the good fortune to have unusually capable men coming to work with me." True, no doubt, but it is one thing to have the opportunity and another to grasp it, and yet another to make the most of it, as did Welch. Moreover in doing so he never forgot his colleagues and his pupils. He is known unofficially as the "Dean of American Medicine," he is known both unofficially and affectionately as "Popsy," that dear old man with the translucent and twinkling blue eye, whose short, thickset figure is familiar on two Continents. Men's faces brighten at the sight of him with his head cocked a little to one side and his white moustache and Vandyke beard giving him almost an Elizabethan air. If you meet him he will be sure to haul a bundle of cigars out of a vest pocket and press them upon you. If you are a stranger in Baltimore he will put you up at the Maryland Club or the University Club and probably take you to the theatre. He will insist on giving you lunch or dinner or both, and he will be more than repaid if you can tell him some good stories. In short, he is the soul of kindness as well as one of the great men of medicine.

I remember how in Baltimore he tried to get a visitor to lecture to his public health students. "You know," he said, "the boys are just crazy to hear you." I very much doubt if the boys were anything of the kind, but Welch sincerely believed they were, and in any case it was a kindly thing to say.

And so we take leave of him, seated at his desk as you see, alert and brisk, ready at eighty for a fresh and formidable task. It is indeed a satisfaction to know that the Johns Hopkins University, for which he has done so much, has honoured Dr. Welch and itself alike in naming the scene of his latest labours the "William H. Welch Medical Library."

AT THE PASTEUR INSTITUTE, PARIS

ALBERT CALMETTE
Assistant Director of the Pasteur Institute

LE Docteur Roux m'a prié de vous exprimer ses regrets de ce que son état de santé ne lui a pas permis de se joindre à nous. Sa pensée est étroitement liée à la nôtre.

Nous sommes ici pour marquer une fois de plus les sentiments d'affection et de solidarité qui nous unissent à nos amis américains, et pour nous associer de cœur à la manifestation par laquelle on célébrera dans quelques heures à Washington le 80e anniversaire de la naissance du Professeur William H. Welch.

Le nom et l'œuvre scientifique de Welch sont illustres dans les milieux scientifiques du monde entier. Welch est particulièrement aimé et honoré à l'Institut Pasteur où il ne manque jamais de venir nous rendre visite à chacun de ses voyages sur le vieux continent. Bien qu'il n'ait pas eu l'occasion de travailler dans nos laboratoires et qu'il eût surtout fréquenté, au temps de sa laborieuse jeunesse, les universités allemandes, il affectionne la France et il le lui a prouvé lors de la grande guerre en mettant à la disposition de nos organisations sanitaires son expérience et sa proverbiale bonté.

Tous ceux d'entre nous qui le connaissent ont été séduits par le charme de sa conversation, par sa vaste culture médicale, philosophique et artistique, par sa physionomie rayonnante d'intelligence et d'optimisme.

L'œuvre scientifique de Welch et son influence sur les jeunes générations médicales des États-Unis sont bien connues de nous tous. Il est un admirable professeur, un organisateur de premier ordre, un excellent clinicien et l'uns des fondateurs de l'hygiène moderne. C'est incontestablement à lui qu'est due l'introduction de l'enseignement de la bactériologie dans les Universités américaines et la création du premier centre de recherches qui a tant contribué à

rendre célèbre l'École du Johns Hopkins où il a su s'entourer d'un État-Major d'élite. Les travaux qu'il a publiés ou a inspirés ont déjà formé la matière de trois gros volumes qu'ont édités ces élèves lors de son 70e anniversaire. Et son activité scientifique se poursuit avec le même bonheur pour le plus grand profit de la science et de ses nombreux élèves qui l'entourent d'une touchante sollicitude et d'une déférente affection.

L'Institut Pasteur a tenu à envoyer à son grand ami Welch, pour qu'il la reçoive aujourd'hui, la lettre dont voici le texte: *

Messieurs, unissons-nous en pensée à ceux qui honorent à cette heure le nom et l'œuvre de William H. Welch. Levons ensemble notre verre à la gloire de ce modèle des citoyens et des savants dont l'Amérique a le droit d'être fière et que l'Humanité bénit.

* Professor Calmette here read the engrossed tribute reproduced on the opposite page.

INSTITUT PASTEUR PARIS

Cher Professeur William H. Welch,

La célébration de votre quatre-vingtième anniversaire de naissance est pour nous, une heureuse occasion de vous exprimer de nouveau, au nom de toute la famille Pastorienne, notre respectueuse affection et notre admiration pour l'œuvre scientifique et sociale que vous avez accomplie pendant votre longue et belle existence de savant, de professeur, de médecin et de philosophe.

Depuis plus d'un demi-siècle vous avez dépensé votre activité, votre énergie et votre magnifique intelligence au service de la Science, et de votre grande patrie. Vous avez été, sans conteste, le premier et vous êtes le plus éminent microbiologiste des Etats-Unis. Vous y avez transporté, au temps de votre jeunesse, après votre premier voyage en Allemagne, en Angleterre et en France, une étincelle de cette flamme allumée par Pasteur, Lister et Robert Koch. De cette étincelle vous avez fait un foyer de lumière et de force. C'est à votre Ecole du Johns Hopkins que se sont formés successivement les meilleurs de nos collègues microbiologistes et hygiénistes américains. Vous pouvez être fier de vos élèves comme ils sont si justement fiers de leur Maître.

En nous associant de tout cœur à votre Jubilé, nous voulons rappeler ce que vous fûtes pour nous pendant les cruelles et glorieuses années d'épreuve. Vous nous avez tendu une main fraternelle et nous avons senti battre votre cœur. Aucun de nous, aucun Pastorien de l'avenir ne l'oubliera.

Vous êtes revenu parmi nous, et aussi à Strasbourg, où vous attiraient tant de souvenirs de vos années d'étudiant, pour participer aux cérémonies de la célébration du Centenaire de Pasteur. Vous y avez représenté à la fois votre Gouvernement et toutes les Institutions scientifiques de votre pays, et vous représentiez pour nous la Science et l'Amitié Américaines.

De tant de témoignages de sympathie et de cordiale estime que vous nous avez prodigués, nous vous gardons une profonde reconnaissance.

Nous formons les vœux les plus ardents pour qu'il nous soit permis, encore pendant de longues années, d'honorer en vous l'un des plus illustres Maîtres des Sciences Médicales et l'un des grands bienfaiteurs de l'Humanité.

Dr Roux.

Dr Louis Martin

Dr Besredka

P. Lecomte du Noüy

Dr C. Levaditi.

Dr A. Calmette

Dr M. Weinberg

Ernest Fourneau

From the engrossed tribute presented to Dr. Welch by the Pasteur Institute, Paris. The signatures are: Dr. Roux, P. Lecomte du Noüy, Dr. C. Levaditi, Dr. A. Calmette, Dr. M. Weinberg, Dr. Louis Martin, Dr. Besredka, Ernest Fourneau.

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AT THE PASTEUR INSTITUTE

ALAN GREGG

Associate Director for the Medical Sciences, the Rockefeller Foundation

Dr. Gregg was unavoidably absent from the luncheon, and his address was read by Professor Selskar M. Gunn, Vice President of the Rockefeller Foundation in Europe.

PARLER du Dr. Welch, c'est parler de celui qui a été le guide et le maître même de nos professeurs. L'affection seule permettra aux plus jeunes d'entre nous de rompre un silence fait d'admiration et de respect, pour oser lui exprimer toute notre estime et lui dire quelle joie nous ressentons à célébrer son quatre-vingtième anniversaire.

À 80 ans, un homme a peu de contemporains pouvant partager avec lui ses souvenirs, connaître ses déceptions, mesurer ses succès et apprécier sa force d'âme; mais pour tout ce qu'il a choisi de nous donner, par sa sagesse et par son aide, il y a des témoins reconnaissants appartenant à la deuxième et troisième générations. C'était une belle tradition que celle établie à Johns Hopkins, par Osler, Halsted, Mall et Welch—cette tradition d'encourager les jeunes en partageant avec eux la passion, les responsabilités et la gloire de recherches ferventes, couronnées quelquefois par des découvertes. Thayer, Cushing, Evans et Simon Flexner ont continué cette même tradition. Souhaitons que ne soit pas perdu cet art d'attirer les jeunes et d'encourager leurs efforts et que soit continuée cette sollicitude paternelle chaleureusement reconnue et acceptée par le surnom familier et affectueux de "Popsy" Welch.

Dr. Welch, qui au début de sa carrière, avait consacré toute son énergie de pathologiste à l'étude des défauts physiques de l'homme est, par un heureux paradoxe, devenu dans la suite le champion de ses qualités. Personne aux États-Unis ne sait mieux que Dr. Welch comment faire valoir ce qu'il y a de meilleur dans le fier vétéran ou comment susciter et maintenir l'enthousiasme d'un volontaire. Si, ainsi que la définition l'indique, le but de la stratégie est

de réduire au minimum les pertes du combat, Welch est alors un maître stratégiste. La portée extraordinaire qu'a eue, il y a 20 ans, son conseil empreint de sagesse, alors que les écoles de médecine pitoyables abondaient aux États-Unis, en est le meilleur témoignage. Il ne proposait ni campagne de suppression forcée, ni accusations publiques de mauvaise foi et d'esprit commercial, ni propagande basée sur la supériorité privilégiée de quelques universités, mais plutôt une simple constatation publique de ce qui existait à ce moment-là—chaque école et ses facilités décrites en détail et sans commentaires—en somme une biopsie de l'éducation médicale. C'est de ce rapport habilement écrit par Abraham Flexner, que commença sans aucune intervention du dehors, l'élimination des écoles les plus mauvaises, l'amélioration d'autres écoles et la critique des meilleures. Y aurait-il pu avoir meilleure stratégie dans le milieu américain, pour réduire à son minimum les pertes de combat, tout en assurant une réforme importante et durable.

Le trait le plus charmant chez un saint, est sa croyance dans la sainteté des autres. Une caractéristique des plus encourageantes chez un professeur éminent réside dans sa supposition naturelle que d'autres peuvent être capables, eux aussi. Un des charmes exceptionnels du Welch est sa façon de nous avoir traités en collègues, dans sa sagesse, et en collaborateurs de bonne volonté dans ses nombreux travaux. Qui serait alors surpris, que nous répondions de la même manière, en croyant qu'il partage avec nous notre seule force—la force de la jeunesse?

Permettez-nous de vous remercier chaleureusement de nous avoir conviés à partager votre hospitalité et le charmant tribut d'honneur et d'affection décerné au Dr. Welch, à l'occasion du quatre-vingtième anniversaire d'une vie si bien remplie et qui nous est si précieuse.

AT THE DINNER IN PEIPING, CHINA

Given by the Peiping Union Medical College

ALEXANDER ASHLEY WEECH

Associate Professor of Pediatrics at Peiping Union Medical College

AS one who speaks in a country where the ripe years of life are venerated for their own sake, my hesitation in speaking of him who has passed the allotted three score years and ten and attained unto the "perhaps four score" will be sympathetically understood. I have known Dr. Welch only as a paterfamilias. I can well recall the effect on the audience at numerous Commemoration and Commencement exercises when "Popsy" stepped on the platform to take his seat—the ripple of applause that passed through the assembly, a greeting with which other dignitaries were rarely honored, and the electric thrill that passed over me and through me as I looked with affection and reverence; and at the weekly meetings of the Hopkins Medical Society the excitement and increased interest when he arrived, an interest born of the knowledge that he personally would participate in discussing the papers on the program. As I remember, these discussions were always interesting, often illuminating and there seemed to be no subject upon which he was not qualified to speak.

The association of Dr. Welch with Johns Hopkins was announced by President Gilman in his Commemoration Day address in February, 1885, four years before the Hospital was formally opened. The early connection enabled him, along with President Gilman of the University and John S. Billings, the medical adviser, to play a prominent and influential part in the selection of the other members of the faculty—Abel, Mall, Halsted, Kelly, and above all, Osler. Something of his ultimate influence may be gleaned by perusing the names of the enthusiastic co-workers who surrounded him from 1886 to 1889, before the Hospital was opened and when he was giving graduate courses in

GREETINGS FROM CHINA

Detail from one of the three silk scrolls presented to Dr. Welch by the Peiping Union Medical College, Peiping, China, on April 8, 1930. *The embroidered flowers form the Chinese symbol for "Long life." The legend in black along the right border reads: "To Doctor Welch upon his Eightieth Birthday"; the one at the left reads: "With congratulations from the members of the Peiping Union Medical College." The scrolls vary in length from seven and one-half to nine feet. See reproduction at page* 150.

ALLEGHENY COLLEGE LIBRARY

pathology—Franklin P. Mall, the first appointed Fellow, Sternberg, Councilman, Halsted, Abbott, Bolton, Flexner, Booker, and Walter Reed.

It is not necessary, nor within the scope of my ability, to trace his influence in countless spheres of activity during his long connection with the Johns Hopkins Medical School—successively as Professor of Pathology, first Dean of the Medical Faculty, first Director of the School of Hygiene and Public Health, and now as Professor and dominating spirit in the Institute of the History of Medicine. I do not wish to close, however, leaving the impression that the influence of William Henry Welch at Johns Hopkins rests upon past accomplishments alone, though his works and charming personality have long since been sufficient to perpetuate his influence. Rather would I regard the four score years unto which he has attained as the summit of his years and conclude with a vision of the future by quoting from Harvey Cushing's address on the occasion of the dedication of the Welch Medical Library: "Not bowed beneath their weight, with feet firm planted and soul undaunted, he stands and contemplates what time has wrought, and trembles not for what was, is, or is to be."

TRANSLATION OF THE ADDRESS ENGROSSED ON GOLD PAPER AND PRESENTED TO DR. WELCH BY THE PEIPING UNION MEDICAL COLLEGE, PEIPING, CHINA.

GREETINGS TO DR. WILLIAM H. WELCH ON HIS 80TH BIRTHDAY

As pioneer in the promotion of scientific medicine in America, Dr. William H. Welch directed the work of the Johns Hopkins Medical School and later established the School of Hygiene and Public Health. Now he is Director of the Institute of the History of Medicine.

Recognized as a leader in medical education, he was requested in 1915 *by the Rockefeller Foundation to visit China and advise on the plans for the establishment of the China Medical Board and the Peiping Union Medical College.*

To show his incessant interest in the progress of modern medicine in this country, Dr. Welch again came to China in 1921 *to attend the formal opening exercises of this College. For the past fourteen years, he has been one of its trustees and as such has taken no small share in shaping the policy of this institution.*

As a mark of recognition of his contribution to medical education in China, we, members of the staff of the Peiping Union Medical College, wish to tender to Dr. Welch our hearty congratulations and wish him further success and happiness in his career. In anticipation, may we hope to greet him again on his 90*th and* 100*th birthdays.*

Silk Scrolls From Peiping Union Medical College, Peiping, China

Large embroidered characters read as follows: center, "Long life"; right, "His long life is as fruitful as that of Wen Lu-Kuo" (scholar-statesman of Sung Dynasty); left, "His achievements, of universal reach, resemble those of Kuo Fen-Yang" (soldier-statesman of Tang Dynasty). Legends in black, each appearing twice, read, on the right, "To Doctor Welch upon his Eightieth Birthday," and, on the left, "With congratulations from the members of the Peiping Union Medical College." See color reproduction at page 148.

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AT THE KITASATO INSTITUTE, TOKYO

T. KITASHIMA
Vice President of the Kitasato Institute

(Translation from the Japanese)

DR. WILLIAM H. WELCH, the father of modern medicine in America, was born in Norfolk, Connecticut, April 8, 1850. His father, Dr. William Wickham Welch, was a physician of high reputation, having graduated from the Yale Medical School.

Dr. Welch received the A.B. degree from Yale in 1870 at the age of twenty. He did post-graduate work in chemistry at the Sheffield Scientific School in New Haven. He then entered the College of Physicians and Surgeons of Columbia University, and graduated with the degree of Doctor of Medicine in 1875. Becoming interested in pathology, as well as in bacteriology, he went to study these subjects at various universities on the Continent. He worked with Cohnheim, Koch and Flügge in bacteriology. During this period he published his works on embolism and thrombosis, diphtheria, hog cholera and wound infections. The most noted works of Dr. Welch are a paper on acute pneumonia in 1877, discovery of *Staphylococcus epidermidis albus* and its relation to wound infection in 1892, discovery of *Bacillus ærogenes capsulatus* in 1892, and classification of various diseases caused by it in 1900. His work on diphtheria toxin with Dr. Flexner even today is regarded as one of the most outstanding works.

Dr. Welch is not only interested in laboratory research, but he has always been greatly interested in all that appertains to public health and preventive medicine. When the Rockefeller Foundation established the Rockefeller Institute for Medical Research in New York with Dr. Flexner as Director, Dr. Welch was appointed President of the Board of Directors. Dr. Welch was the prime factor in obtaining aid from the Rockefeller Foundation in establishing

the School of Hygiene and Public Health as part of the Johns Hopkins University in 1916. The preparation of plans and work of organization of this new institute was personally conducted by him and he later became its first Director.

Dr. Welch's brilliant career may well be illustrated by the honors which have been conferred upon him by many universities, scientific bodies and governments in America and foreign countries. He was President of the Society of American Pathologists and Bacteriologists in 1906; of the American Medical Association in 1910; of the National Academy of Sciences from 1913 to 1916; he is honorary member of the Royal Academy of Science, of Edinburgh Academy of Medicine and Surgery, of the Academy of Medicine, Paris. He has received the decoration of the Order of the Rising Sun from the Emperor of Japan, the Order of Mercy from Serbia, the Legion of Honor from France.

Dr. Welch is now Director Emeritus of the Johns Hopkins School of Hygiene and Public Health. At the age of eighty he is still active and with characteristic determination he began to devote his time to the study of the history of medicine. He has been made, therefore, Professor of the History of Medicine and the Director of the recently established Institute of the History of Medicine at the Johns Hopkins University. When the Medical Library building was dedicated on October 17, 1929, it was designated the "William H. Welch Medical Library" in his honor. The library has a capacity of seven hundred thousand volumes, with spacious reading rooms, lecture rooms and business offices. The dedication exercises attracted leading medical men from abroad as well as from all over the United States. Dr. Sudhoff, professor emeritus of Leipzig University, officiated at the dedication. Professor Welch was made the first director of the library.

Professor Welch is an inspiring teacher and is possessed of a charming personality. No wonder that he is so universally beloved by his associates and pupils during his career of more than forty years as Professor of Pathology, Dean of the Medical School, and Director of the School of Hygiene and Public Health at the Johns Hopkins University. His untiring activities, his winning

personality are irresistible and gain the high esteem of those who come in contact with him. We, who had an opportunity to meet him when he came to Japan several years ago, still have a fresh and loving memory of the leader of modern medicine.

It is most fitting to pay homage at the eightieth anniversary of this beloved scientist. The world will do honor to him by simultaneous celebrations of his birthday today. Baron Kitasato has been invited to attend the celebration at Washington as an honorary vice president. He, however, is unable to do so on account of his ill health, but he is here with us today to participate in our ceremonies.

May Dr. Welch in the years ahead be able, in good health, to continue his work toward the advancement of science and promotion of human happiness.

AT THE KITASATO INSTITUTE, TOKYO

CHARLES A. KOFOID
Professor of Zoology at the University of California

OUR meeting here in Tokyo today is deeply significant of the wide influence of him whom we are honoring, an influence wielded directly upon those fortunate sons of Japan who came under his influence in Baltimore, and still more, but indirectly, by his concepts of scientific medicine, his high ideals of medical education and medical practice, which know no geographical boundaries and spread in the face of the limitations of the confusion of tongues.

In a comparable degree the influence of Dr. Welch has extended beyond the limits of his profession and the art of medicine into those basic scientific disciplines upon which medicine rests and through them to a still wider circle of the physical and biological sciences. This influence has manifested itself in medical education, in the elevation of standards of admission to medical schools, in the elevation of standards of equipment for medical instruction and research, and in the release from continuous teaching routine of the faculties of medical schools in the pre-clinical subjects, for research. This has facilitated and made possible in the United States the rapid development within the present century of institutes of medical research, both in the general field and in the more specialized departments of medicine.

The crowning event of his career has been the development of the School of Hygiene and Public Health at the Johns Hopkins University. This institution in its organization, personnel, and achievements, not only reflects the scientific breadth of view of Dr. Welch, but gives an insight into his ambitions for the future of social and preventive medicine. The international fellowships utilized so freely at this institution are giving a world-wide dispersal to these social ideals, educational standards, and scientific accomplishments.

These sustained efforts in medical education at the Johns Hopkins University have indirectly but powerfully affected instruction and research in coordinated and related fields throughout the United States, especially in the fields of biology, chemistry, hygiene, and public health. They have been profoundly influential in establishing higher standards in the scope, organization, and performance of research, and in its presentation and illustration.

There is a saying current among our younger and often more specialized scientific men that a certain sign of senescence among their older and outdistanced colleagues is an interest in the historical sides of their fields. There is a quantitative reason for this, since time, the fourth dimension of human experience, enters with ever-widening relations into the scholar's life. Few men in the passing generation have had a part in so many of these interlacing scientific developments as has Dr. Welch. To trace their origin in the dim but not unillumined past and map out their development through the ages and especially during the lambent years of this glorious century is the task of the scholar and the seer. The library of medical history founded in Doctor Welch's honor and guided by his wealth of culture and knowledge of the truly significant is a fitting crown to the life of this American scholar.

I propose the toast, "Dr. Welch, the scholar."

A SURVEY OF THE GREETINGS

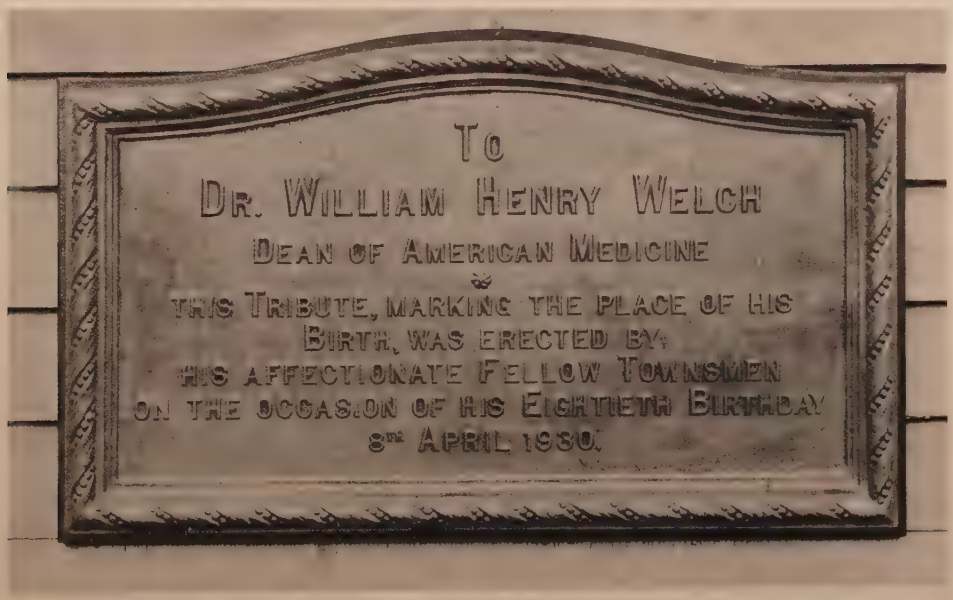
BY LETTER AND TELEGRAM TO DR. WELCH

HOW broad and deep and enduring the power of Dr. Welch's personality; how profound the gratitude of men working, throughout the world, with an enthusiasm inspired by him; how eagerly followed the bright gleam of his leadership and how widely felt the humanity which permeates his learning; how gladly told the love of those who have known him best and longest; how deeply cherished in the hearts of survivors the old friendship between departed ones and him—all this we feel keenly when reading the letters and telegrams which carry birthday greetings to Dr. Welch from nearly six hundred men and women, most of whom were not able to pay their tribute in person at the celebrations where he was present.

Passages from these communications grouped in this survey will remind the reader again of the many-sided work of the world today in medical education, medicine, and public health, and will give a picture of Dr. Welch, from infancy to eighty, as reflected from the hearts of some who have walked with him along the way.

His Father's Child

Beginning in Norfolk, Connecticut, where Dr. Welch was born, we see him as an infant, expressing his eager curiosity. This glimpse comes through a letter from Thomas H. Cranley, of New Britain, Connecticut, who was born in Norfolk, when Welch was about a year and a half old. "My father and mother and I lived in your father's old homestead," he writes. "Your father—Doctor William, as every one called him—was our family doctor." Mr. Cranley then relates how, when he was a baby, his mother used to put him in a cradle out in the yard, ". . . and you were running about . . . You would run over to the cradle and try to open my eyes to see what kind of a Kid that was in that cradle."



The upper picture shows the house, in Norfolk, Connecticut, in which Dr. Welch was born. The bronze memorial tablet shown in the lower picture is placed just below the front windows to the right of the main entrance.

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The curiosity revealed was perhaps to be expected from a boy whose father, grandfather, and four uncles were doctors. That medical background, particularly in the case of the father, is remembered now by many who have seen the boy grow up to be eighty. E. C. Bridgman, of Stapleton, New York, writes of early days in Norfolk. "When I was about 12 or 13 years of age," he says, "while celebrating a victory of the Union Army I had my foot on a toy cannon which exploded. . . . Dr. Welch, your father, had just returned for a rest from his work in the army, and he praised me very highly as a 'brave little boy' while he probed the wound. He was very genial and efficient." Writing of this doctor as one who "in the whole countryside was the object of confidence and affectionate pride," the Reverend Frank T. Pomeroy, of Newton Highlands, Massachusetts, sends his tribute. His deceased wife was the daughter of Samuel D. Northway, of Norfolk. "I am writing this for her," he says. "I know how close was the relationship between your father's family and the Northways."

Miss Sarah E. Bigelow, of Norfolk, says, "My family of two or three past generations was so intimately associated with your family that I feel, being the last representative, I cannot let this occasion go by without adding my word of tribute." Mrs. John H. Enright, of Far Rockaway, New York, writes, "Our family have been very proud of your great success. Your good father attended my family, while they lived in Norfolk, and we all loved and honored him." A recollection of intimacy with "Dr. John's" family, referring to one of the four uncles, accompanies the congratulations of F. D. Hallett, of Winsted, Connecticut. Mrs. Cynthia Hallock Lawrence, of Torrington, Connecticut, feels a neighborly pride because her father had lived in Norfolk.

A Boy of Norfolk

"I remember you as a young boy with your sister, Coz. Emma," writes Mrs. Lucy Seward Noble, of Fayetteville, New York, declaring that Dr. Welch's honors "touch your relatives with fervent concern, interest, and pride."

At the age of about twelve Welch was sent to a boarding school in Winchester Center, Connecticut, which was conducted by the Reverend Ira W. Pettibone, an uncle by marriage. An old schoolmate, Elliott B. Bronson, living in this town, reminisces: "As I sat thinking of my boyhood, I could see you in the old schoolroom at the old Winchester Institute, you one of the *big boys* and *going to Yale College* and I a little fellow looking in awe at you. I can see just where you sat and know where I sat and how I felt." Bronson afterwards married Fanny Pettibone, a cousin of Dr. Welch.

Another recollection of early days comes from Dr. Walter L. Barber, of Waterbury, Connecticut, who wrote, before the Celebration, "I shall listen to you over the radio with a sense of great pride that I once tramped the Norfolk hills with you." These hills, as well as memories of old days, inspired verses in German from Mrs. John C. Kendall, of Norfolk, widow of a boyhood friend and classmate of Dr. Welch, both at Yale and at the College of Physicians and Surgeons. Her verses end, "Dein Land vergisst dich nicht!" How true this statement is may be seen in the Resolution adopted at the Special Town Meeting on March 29, published in full on another page, which contains the passage, "We feel that we can reverse the words of Scripture and assure you that this town has always held its prophet in the greatest of honor." Mrs. Henry H. (Alice B.) Bridgman, one of the signers of this Resolution, and a friend of Dr. Welch since childhood, was also active in arranging the local celebration at the Norfolk Library.

A Yale Man

The "big boy who was going to Yale College" went at the age of sixteen. He received the degree of A.B. in 1870, ranking third in a class of one hundred and eleven. Twenty-one of them, including Dr. Welch, were living in February, 1930, according to the class secretary, the Reverend Lewis Wilder Hicks, of Wellesley, Massachusetts. Out of their friendship for Welch, begun at college and ripened during sixty-four years, come many expressions of pride and

affection. Professor Edward Salisbury Dana, of New Haven, Connecticut, declares that the honors showered upon Dr. Welch "must give a thrill to every one of your classmates. What has been said to you, and about you, is so richly deserved!" Robert W. de Forest, of New York, thinks "you are quite unique in having everyone love you, and, so far as I am aware, there is no one who envies you your unparalleled success and usefulness."

From Pasadena, California, comes a joint telegram of affectionate greetings from Charles Winthrop Gould, Charles Mercer Heald, and Brigadier General Charles McCormick Reeve. In a letter Mr. Heald says that these three were "pleased beyond power of expression . . . after reading accounts in five different papers, and listening in on the radio, at the well-deserved recognition of the great work you have accomplished." He urges Welch to come to the Sixtieth Reunion at Yale, declaring that "if you do not there will be left a wound that Medicine cannot cure."

A grain of early doubt is whimsically recalled by the Reverend Doctor James G. K. McClure, of Lake Forest, Illinois, who says, "There were times when listening to your debating . . . I really did not anticipate the glories of this past week. This I am sure was due to my short-sightedness, not to the nature of your debate, which must have been much wiser than I realized. However, I am as proud of you as a man can be who loves, admires and respects you. And you will have to let me add that I thank God for you." Dr. Dwight W. Learned, of Claremont, California, speaks of the honor which Dr. Welch has brought to the Class and prophesies that his great work is not yet finished. He tells of a pleasing incident: "Soon after coming here we had occasion to call in a physician, and as soon as he saw on my desk the photograph of our Class Reunion in 1920 he called out with joy at seeing you among them. . . ."

Touching words in behalf of classmates that have passed away come from their widows. Mrs. Edward P. Clark, of Brooklyn, New York, whose husband died twenty-seven years ago, writes "for him and for myself." Mrs. Charles

E. Shepard, of Spokane, Washington, says, "I wish Charlie were here now, *to know;* how heartily he would congratulate you!" She recalls "how the Seattle doctors vied with each other in honoring you when you came up there from the National Meeting in Los Angeles some years ago—and what a happy time we all had then." Mrs. Lauriston L. Scaife, of Milton, Massachusetts, whose husband was classmate, roommate, and chum of Dr. Welch, writes, "My memory goes back, as you know, many years, to the time when you were 'Billie Welch' to me, the dearly loved of my dear husband. Laurie always watched your progress with the greatest interest and pride. How he would have rejoiced with you and for you today!"

Trying Out Teaching

After Welch had finished at Yale College his mind was on the classics and he spent the year 1870–71 teaching Latin and Greek at a school in Norwich, New York. One of the pupils of that school, Isaac B. Newton, now of San Francisco, whom Dr. Welch had never met again, wired birthday greetings. Mr. Newton's sister, Mrs. L. Grant Baldwin, of Brooklyn, remembers visiting the same school and seeing Welch. It was when she was "a little child of four."

Doctor of Medicine

Welch was indeed destined to be a teacher. But Greek and Latin were not to be the field of one whose grandfather, father, and four uncles had chosen the medical profession. He spent the next year at the Sheffield Scientific School of Yale University studying chemistry as a foundation for medicine. He then enrolled at the College of Physicians and Surgeons of Columbia University in 1872, and he received his degree of M.D. in 1875.

A classmate at the medical school was the late John C. Kendall, Yale classmate and boyhood friend, of Norfolk. Mrs. Kendall's greeting from Norfolk has already been referred to. Mrs. George A. Spalding, of New York, whose husband was a classmate at the medical school, writes, "How proud he would

have been of you!" She recalls an evening in New York "in the old days at 117 East 17th Street, when Mr. [Clarence] Olcott greeted you with 'Hast thou a charm to stay the morning star in his steep course,' and you replied, 'My friends tell me that I have.'" Then she adds, "Today your friends all over the world are telling you that you have 'stayed' many things which have brought dread to the hearts of men for long." Dr. David Bryson Delavan, of New York, and Dr. Edward Joseph Ill, of Newark, medical classmates of Dr. Welch, signed the memorial, published in this book, which was presented to him at the New York Academy of Medicine. The birthday greeting from the present Dean of the College of Physicians and Surgeons is given later in this survey.

Discovery in Europe

After graduating from medical school, Dr. Welch completed his interneship at Bellevue Hospital, which he had begun before graduation. But now, with the best medical education that could be obtained in America, he still realized the need of a more perfect equipment. The place to get it was Europe, at this time astir with the clash of brilliant minds debating the new germ theory. He set sail in the spring of 1876, a shipmate being Dr. Frederic S. Dennis, his boyhood friend from Norfolk. Dr. Dennis, who afterwards roomed with Dr. Welch in New York and was a colleague at Bellevue, was among the first to wire congratulations on April 8, 1930.

Memories of Dr. Welch at Strassburg, the first European university at which he studied, come in a letter from A. H. Koebig, of Los Angeles, who is proud of the old friendship. One of the most brilliant Europeans under whom Dr. Welch studied was Professor Cohnheim at the University of Breslau, and his recommendation is said to have been largely responsible for the selection of Dr. Welch in 1884 by the Johns Hopkins University authorities. But the Breslau master had discerned the promise of Welch six years before he made that significant recommendation. This is remembered in a telegram from Dr. Alfred Meyer, New York, who asks, "Do you recall what Cohnheim said to

me in 1878, that you were an able man and would make your mark? How true, and how he would rejoice with you today!"

During the year 1877 Dr. Welch visited, in Prague, Professor Edwin T. A. Klebs, whose work strongly impressed him. The son of this master, Dr. Arnold C. Klebs, of Geneva, Switzerland, celebrated Dr. Welch's eightieth birthday with a dinner, described on another page, and sent several enthusiastic communications. In 1877 also Dr. Welch first met Professor Robert Koch, the great German discoverer in bacteriology, under whom he worked, during his second study trip, in 1885. Reference to these early days comes in a letter of tribute from Professor August Gärtner, of Jena, Germany, who was also among the first students of Koch.

A reminder of the late Professor Carl Flügge, teacher of Welch at Leipzig in 1885, is contained in a letter from his son, Dr. Rudolf Flügge, who writes from New York City that he has a vivid recollection of Dr. Welch's visit to his father in Germany in 1923. Professor Hans Virchow, of the University of Berlin, writes, "your name is deeply engraved in my memory." He is the son of Professor Rudolf Virchow, with whom Dr. Welch had contact during his first European study.

A Great Leadership Begins

Having completed his training in Europe Dr. Welch returned to New York in 1878. He declined an offer to lecture on pathology at the College of Physicians and Surgeons, because no laboratory was available there. Immediately the rival institution, Bellevue Hospital Medical College, offered him a laboratory and a position to teach. There he began his epoch-making development of American pathology in its modern character.

Half a century later men are recalling those memorable years at Bellevue. Dr. M. Allen Starr, of New York, writes, "the first little piece of scientific work I ever did in Bellevue Hospital, in 1880, on Hemoglobinuria, was done under your direction." Dr. Henry Fairfield Osborn, of New York, refers to a course

of histology lectures in 1880 on which, he says, "I have full notes illustrated by drawings, but, even better, a crystalline record by visual memory of exactly how you appeared, where you stood and how you inspired me with your brief historical introduction to each part, type of cell and tissue."

Dr. J. L. Minor, of Cordova, Tennessee, writes, "As a friend, a pupil, and admirer of yours in our earlier days—nearly fifty years back—I have followed your steady progress in reaching the foremost position in your profession." Dr. Gustav A. Kletzsch, of Milwaukee, and Dr. Jasper J. Garmany, of Bay Shore, New York, both in the Bellevue Class of 1882, send hearty congratulations. Dr. John K. McLeod, of Sydney, Nova Scotia, Class of 1883, writes, "I remember well your lectures on pathology, interesting and instructive. . . . It was a great privilege, I can assure you, to have such teachers." From Nice, France, writes Dr. B. Sherwood Dunn, Class of 1884, of his pride in having been a student of Dr. Welch. Another member of the same class, Dr. J. A. Fulton, of Astoria, Oregon, acknowledges "the splendid teaching I received listening to your lectures." Dr. J. W. Hartigan, Class of 1887, of Morgantown, West Virginia, is glad to call himself "one of your Bellevue students." A colleague on the Bellevue staff, Dr. John Marshall Hills, of New York, expresses pleasure in "what the newspapers have printed about you and your work."

A devoted friend of Dr. Welch was the late Dr. Sam Alexander, his pupil in the Class of 1882, who was afterwards on the Hospital staff. His sister, Mrs. J. J. McCook, of Washington, D. C., remembers "the laboratory in the old Bellevue, where . . . you kindled such enthusiasm. . . ." Referring to her brother, she says, "you lighted the spark which started him. . . ."

During these years in New York Dr. Welch roomed, and had his office, together with Dr. Dennis, in East 21st Street. That he was hero to his valet, as well as to pupils, is proved by a letter from William Wilson, of New York, whose recollection "goes back over 46 years when you were . . . at 21 East 21st Street, and I was the humble janitor of the Miers Coryell apartments . . . your face as it looked at 34 years is as fresh as though it were yesterday. I

rejoice in the distinguished honors that have come to you . . . for forty years I have been one of the accountants of this large publishing business." In a more recent letter to the editor of this volume Mr. Wilson tells of having met Edison in 1879, with whom he compares Welch. "The general manner and bearing of these two young men was very similar," he writes. "And I have always in my thinking associated one with the other."

The work which Dr. Welch did at the Woman's Hospital while teaching at Bellevue is alluded to by Dr. Henry C. Coe, of New York, who writes as "your former student in your laboratory . . . and later your unworthy successor as pathologist to the Woman's Hospital." He congratulates his old teacher on the possession of "honor, love, obedience, and troops of friends."

"I saw you first when I was commencing my duties as interne at the Woman's Hospital," writes Dr. A. H. Buckmaster, of Columbus, Ohio. "I thought of you as a man well advanced in years . . . you have continued to be an inspiration for good ever since."

An old friendship dating back to these early days in New York was that of Dr. Welch and the late Samuel S. Dennis, brother of Dr. Frederic S. Dennis. Referring to her husband, Mrs. Lida Thomas Dennis, writing from Washington, D. C., sends congratulations "in Sam's name and mine. Were he here he would be so keenly interested in the splendid recognition you are receiving. . . ."

Welch's early influence outside of New York is illustrated by a letter from Ambrose Swasey, of Cleveland, who writes to the Committee, "Nearly half a century ago when I first came to Cleveland, I had the opportunity of hearing Dr. Welch speak and remember that he impressed me as a most wonderful man."

Pioneering at Hopkins

The scene shifts to Baltimore, where Dr. Welch continued a career that soon made him "Popsy" to his fellows and in time "Dean of American Medicine"

to the world. Before quoting from the many messages of affection and admiration that refer to his work and life at Johns Hopkins, an item or two of history may be given. Dr. Welch was appointed Professor of Pathology at the Johns Hopkins University in 1884, and Pathologist to the Johns Hopkins Hospital at its opening in 1889. He began his work at Hopkins in the autumn of 1885, after having spent a year in study abroad. He was Dean of the Medical Faculty from 1889 to 1898. The School of Medicine was opened in 1893. He remained Professor of Pathology until 1916. He had been appointed Director of the School of Hygiene and Public Health in 1916, and this school was opened in 1918. He resigned from this directorship in 1926 and was then appointed Professor of the History of Medicine. During 1912–14 Dr. Welch was Chairman of the Administrative Committee which performed the duties of the President's office of the Johns Hopkins University.

"I . . . was present, I think, at the first autopsy you performed at the Johns Hopkins Hospital." This is the recollection of Professor Ross G. Harrison, of Yale University, who, as a student at Hopkins, had thought of entering the medical profession. In 1896 Professor Harrison joined the Faculty to teach anatomy and he remained a colleague of Welch until 1907. Commenting in his letter on the great developments in medical education, he says, "What we owe to the wisdom, foresight and enthusiasm of you, our leader in this movement, can scarcely be appreciated and certainly never repaid." Dr. Joseph Jastrow, of New York, who was a Fellow in Psychology at Johns Hopkins when Welch began teaching there, writes, "From the old days when you brought encouragement to younger men in your 'Fach' and out of it . . . my esteem has been continuous, my admiration profound. . . ."

An echo from the late Professor Franklin P. Mall, whose connection with Johns Hopkins began in 1886 as a Fellow in Pathology, comes through his nephew, Professor L. B. Schmidt, of Iowa State College of Agriculture and Mechanic Arts. Professor Schmidt writes: "My uncle referred to you many times. I remember especially one occasion when I asked him what he con-

sidered had been the greatest factor in his success; and he replied without hesitation: 'My good fortune in coming into contact with great men, such as Doctor His and Doctor Welch.'" Another reminder of an old comrade comes in a telegram from Mrs. Susan Chapin, of Jamaica Plain, Massachusetts, who is a sister-in-law of the late Sir William Osler.

A famous painting by John Singer Sargent portrays four doctors in a group. One is Dr. Welch. The other three are the late Sir William Osler, the late Dr. William Stewart Halsted, and Dr. Howard A. Kelly, all of whom had been recommended for Hopkins by Dr. Welch. Dr. Kelly, who was Professor of Gynecology from 1889 to 1919, writes, "I have known you better than many . . . and it has been a special joy to me to see you so honored."

One of Dr. Welch's earliest Hopkins students in pathology, Dr. Harry Friedenwald, of Baltimore, gave him a rare volume from his own library as a birthday gift. In it he wrote:

"To Doctor William H. Welch,
One of the Immortals, who has lived
to witness his immortality
In the Enduring Institutions
which he has brought into being
and which are ever extending
his cultural and beneficent
influence, no less than in the
Admiration and the Love of Mankind."

Professor George H. F. Nuttall, who studied pathology under Welch in 1890–91, and taught bacteriology at Hopkins the following two years, now Professor of Biology, at Cambridge University, England, sent his warmest congratulations by radiogram. Professor Emeritus Lewellys F. Barker, of Baltimore, pathology student under Welch in 1891–94, and successively teacher of anatomy, pathology, and clinical medicine at Hopkins during the next twenty-seven years, writes, "No one, anywhere, owes you more, admires

you more, or loves you more, than I do. May you have still many years of physical and mental health and vigour, a wish for you in which my wife joins me."

Another pathology student, Dr. Adolph Leo Lewin, of Pittsburgh, who was at Hopkins in 1892–93, telegraphs, "You have done more than any other teacher I have had—Virchow, Koch, and others. You have translated inspiration into practice." The recently deceased Professor Emeritus Henry Johns Berkley, of Johns Hopkins, who had studied pathology under Welch in 1893–94, wired his congratulations and tribute to "the splendid accomplishments which have filled these years."

Professor T. H. Morgan, of the California Institute of Technology, who began his study of zoology at Johns Hopkins in 1886, wrote to the Committee, "There is no other scientific man that is so much beloved as he, and no one in the country who has done as much for the progress of science in its many aspects."

Birthday greetings to "the man whose life means so much to every American and especially to his former students who are all his friends," were sent jointly by Dr. Walter McNab Miller, of Columbia, Missouri, graduate student at Hopkins in 1896 and in 1899–1900, and Mrs. Miller, of the American Child Health Association.

Professor John Ruhráh, of the University of Maryland, graduate student in histology at Hopkins in 1892–94, writes in a note of congratulation, "May you continue to guide us for a long time to come." Professor Richard P. Strong, of Harvard University, graduate of the Johns Hopkins School of Medicine in 1897, says, "I can never forget the inspiration that you have given me in my medical work." Other graduate students at Johns Hopkins in the early 90's who communicated their tributes to Dr. Welch are Professor E. R. LeCount, of Rush Medical College, and Dr. James F. Mitchell, of Washington, D.C.

Dr. John J. Abel, Professor of Pharmacology and colleague of Dr. Welch continuously for thirty-seven years, writes, "To have known and to have

worked with you these many years has been one of the great experiences of my life." Professor William Sydney Thayer, who, as a young doctor, came in 1890 to take special courses at Hopkins, and who taught medicine there from 1895 until his retirement in 1921, sat down on April 7, the day before the Celebration, and wrote the following to Dr. Welch:

> "Those of us who have had you to ourselves feel rather lonely now that you've passed from our hands into those of the world.
>
> "We all want to tell you something of what you've been to us ourselves, something of our love for you.
>
> "You have been to us all the wisest, the most learned, the most tolerant, the kindest, and, best of all, the truest and simplest of friends.
>
> "To tell you what you have been and are to us would be impossible.
>
> "We can only try to express our love and our loyalty—and our hopes that you may long remain what you are now, and always have been!"

A touching letter of tribute comes from Mrs. Charles B. Ewing, of Baltimore, whose husband was a graduate student in chemistry and biology, in 1892–94, and who afterwards joined the U. S. Army Medical Corps. A similar letter comes from Mrs. William R. Stokes, whose husband, late Professor of Bacteriology at the University of Maryland, had been a graduate student at Johns Hopkins in 1891–93.

Memories of early days come with a telegram from Mrs. H. M. Thomas, of Baltimore, whose husband, one of Welch's students in pathology in 1886–87, was Clinical Professor in Neurology from 1896 until his death in 1925. This telegram is also signed by their son, Dr. H. M. Thomas, Jr., who received his M.D. at Hopkins in 1916 and has since been teaching clinical medicine there.

A departed admirer of Dr. Welch was the late Professor Sidney Sherwood, who taught political economy at Hopkins from 1892 until his death in 1901. Mrs. Sherwood writes, "Sidney 'valued your friendship most highly' and he 'loved you.'"

An unusual proof of an old friendship is furnished in communications from

relatives of the late Major Richard M. Venable, a lawyer who was a trustee of Johns Hopkins from 1898 until his death in 1910. His cousin, Miss Susie W. Venable of Hampden-Sidney, Virginia, writes, "The friendship of you two great men was a very beautiful one. When I was with him those last weeks I was constantly struck with the tender love of your attentions and his joy at having you with him." His nephew, Edgar Venable, of Ely, Nevada, telegraphs, ". . . I wish to repeat the last words Uncle Dick spoke a few minutes before he died, when he said in a whisper, 'I wish to express my great admiration for Dr. Welch.'"

By the end of the century the Johns Hopkins Medical School was solidly established, and Dr. Welch was in full career of achievement. A former associate, Dr. Flora Pollack, of Baltimore, graduate student in 1893–94, and later Assistant in Gynecology, gives us a happy glimpse of the period when she calls it "a time when medicine of the nineteenth century was truly in its romantic stage, still looking ahead into the future that held the secrets and cures of disease."

Pioneering Becomes a Habit

At the beginning of the twentieth century the Johns Hopkins University was already recognized as the center of a widening circle of influence upon medicine and medical education in America. Welch at this center and all the way out to the perimeter of the circle will be seen in a mass of spontaneous testimony from well-wishers on his latest birthday.

Having brought the medical school to high achievement, Dr. Welch became the moving factor in the School of Hygiene and Public Health. An estimate of this institution appears in a beautiful tribute to Dr. Welch sent to the Committee by Sir Arthur Newsholme, of Birmingham, England, who lectured on public health administration at the School during 1919 to 1921. He says, among other things, "It is perhaps too early to estimate accurately the momentous importance attaching to the Schools of Hygiene and Public Health,

which in large measure, are his creation. . . . I think of Dr. Welch not only as a great pathologist and investigator, but also as the initiator and source of many original researches, in which, like the English Warwick, he has been satisfied to be Kingmaker not King."

Glancing over the congratulatory messages we find a few more that serve to remind us of recent events at Hopkins. One is a telegram from Mr. and Mrs. Sargei Konenkov, of New York. He is the sculptor of the portrait bust of Welch unveiled at the University in 1926.

During that year Dr. Welch became Professor of the History of Medicine. Here is a cable sent from Paris by his associate in this new department, Dr. Stephen d'Irsay, who says, "Terribly sorry not with you today, but always there in spirit, dear master. Loyal and affectionate greetings."

The William H. Welch Medical Library was dedicated in 1929. A speaker at the ceremonies, Leonard L. Mackall, of Savannah, sent Dr. Welch as a birthday book a rare copy of Nicander's "Theriaca." Referring to this in a telegram, he says, "You need medicine bibliographically, not physically." A gift of books to the Library accompanied the congratulations of Dr. Annie G. Lyle, of San Francisco, who received her Hopkins M.D. in 1902. George Blumenthal, of Paris, sent his greetings along with a gift of one thousand dollars to the Library "as an expression of my admiration for your services to humanity."

Service in the Army

Before going on to the spreading influence of Welch as an educator, we shall quote two letters which recall his services in the Medical Reserve Corps of the U. S. Army. He went in as major in July, 1917, and became colonel before he was discharged from active duty at the end of 1918. He became brigadier general in the Medical Officers Reserve Corps in 1921.

Surgeon General M. W. Ireland wrote two days after the Celebration: "I think April 8th was one of the greatest days during the time I have been

Surgeon General, when the members of the Corps could assist in doing honor to you. I am sure there has never been such a tribute to anyone in the medical profession." He then tells "how proud we all were of you and that you had been associated with the Corps."

An amusing incident of war time is related by Dr. Jay Harvey Bacon, a Johns Hopkins medical alumnus, in a letter which begins "My dear 'Popsy,'" a document of additional historical value because Dr. Welch had never before been thus familiarly addressed in writing. A paragraph from the letter is:

> "You will not remember when last I saw you. It was but a fleeting glimpse in the dark days of the war when the plague ran riot at Camp Devon. I was a Ward Surgeon in charge of a 'double-decker' and the mortality was above fifty a day. On a Company street, out of the rain, with two other officers, I met you suddenly. I had not seen you in a dozen years but I recognized you. I stiffened, saluted, and it had to come out, military law, court martial or not, 'Howdy Popsy.' You smiled, and saluted, and passed on. That glimpse cheered me and I told my fellow officers and stricken men we would soon have the best that medical science could offer to aid us."

The School of Welch

So strong has been the influence of Welch upon other schools of medicine, through the pupils and associates he has trained, through other admirers of his work, and through personal visits, that one may justly characterize a large and notable part of medical teaching in America as being in the School of Welch. From that school comes a round of applause.

At Yale his power has been felt, not only through the work of Dean Milton C. Winternitz, his pupil and former first assistant, but also through personal visits, especially in connection with the recent establishment of the Institute of Human Relations. President James Rowland Angell wrote before the Celebration: "We are sending Winternitz to represent Yale, and especially the Medical School, to which you have been so invaluable a friend. . . . You

need, I am sure, no assurance of the universal respect and affection in which you are held at Yale, nor of the unconcealed pride in your career which all Yale men cherish." Dean Winternitz, who, incidentally, like Dr. Simon Flexner and others, named a son William Welch, writes of the Washington meeting, "It was a great privilege to be allowed to greet you yesterday, to see you so well and so thoroughly enjoying the tribute, grand though it was, only inadequately expressing the debt we all owe you."

The official greeting of Yale, which Dean Winternitz brought to Washington, reads as follows:

> "The President, Fellows, and Faculty of Yale University send their good wishes and hearty congratulations to William Henry Welch, B.A. 1870, LL.D. 1896. Stimulating leader for more than half a century in this country's unparalleled development in the whole field of medicine and public health, a man of clear vision and wide knowledge, always the cultured gentleman, always the generous critic, he inspires the best in his pupils and colleagues. His Alma Mater hails him on this his eightieth birthday."

This greeting is signed by James R. Angell, President, and Carl A. Lohmann, Secretary.

"The Faculty of the St. Louis University School of Medicine, recalling gratefully Doctor Welch's services in the organization of this School in 1903, offers its felicitations to the father of modern American medicine. . . ." This is quoted from an official greeting telegraphed by Dean A. M. Schwitalla.

From another institution aided by Dr. Welch comes the following telegram: "All your pupils and former associates in the University of Rochester School of Medicine and Dentistry join in sending you affectionate greetings. . . . Our endeavors to organize medical education and research . . . have been founded upon your example and precept in past years and strengthened by your constant encouragement. . . ." Former pupils who signed this message are: Dean George H. Whipple, Dr. Samuel W. Clausen, Dr. George W. Corner, Dr. Thomas A. Devan, Dr. Stanhope Bayne-Jones, and Dr. John J.

Morton. Other signers were Dr. William S. McCann and Dr. Karl M. Wilson. Dr. Konrad E. Birkhaug, of the same institution, also a graduate of the Johns Hopkins Medical School, sent a telegram saying, "May your seemingly inexhaustible energy continue *ad multos annos.*"

A group of graduates of the Johns Hopkins Medical School, most of whom are now on the Faculty of the University of Georgia, sent a telegram from Augusta. The signers are: Dr. Joseph Akerman, Dr. J. W. Brittingham, Dr. W. C. Kellogg, Dr. C. S. Lentz, Dr. Robert L. Rhodes, and Dr. V. P. Sydenstricker.

President Lotus D. Coffman writes: "On behalf of the University of Minnesota, on whose faculty are a number of your old students and whose Medical School has been profoundly influenced by the educational ideas you have promulgated, I congratulate you. . . ."

Nine of the seventeen former students of Dr. Welch who assembled in Minneapolis to hear the broadcasting from Washington were on the Faculty of the Minnesota Medical School. These Hopkins alumni telegraphed, "We . . . are with you in spirit, with the image of your smile graven on our hearts." They sent congratulations and gratitude for "many words of kindness and inspiration which have helped throughout the life of each of us." Alumni faculty members who signed the telegram are: Dr. Arthur D. Hirschfelder, Dr. A. W. Morrison, Dr. H. L. Ulrich, Dr. C. B. Wright, Dr. H. W. Cook, Dr. George R. Dunn, Dr. H. B. Dornblaser, Dr. W. A. Fansler, and Dr. F. W. Wittich. Other Hopkins alumni who signed the message are: Dr. Charles N. Spratt, Dr. R. C. Webb, Dr. H. M. Wynne, Dr. F. Grave, and Dr. E. D. Simpson, all of Minneapolis, and Dr. F. E. B. Foley, Dr. F. G. Carter, and Dr. W. P. Sadler, of St. Paul.

Dean E. P. Lyon, of the Minnesota Medical School, had written to Dr. Welch a few days earlier, "We feel that our Medical School, like others all over the country, has been much benefited by your foresight and ideals. . . ." Dr. Chloe Owings, also of the University of Minnesota, expresses "deep per-

sonal gratitude for Dr. William H. Welch and that richness of life which he represents."

The Faculty of the School of Medicine of Vanderbilt University, Nashville, Tennessee, expresses "genuine admiration and affection" for Dr. Welch. He is saluted as "a great leader of modern medicine" and praised for "outstanding service in the development of preventive medicine, and the statesmanlike attitude . . . in matters of public health," and the message declares, "We endeavor to apply the principles enunciated by you." Former students of Dr. Welch among the signers are: Dr. Barney Brooks, Dr. Robert Sydney Cunningham, and Dr. Ernest W. Goodpasture, the latter two having also been his associates on the Hopkins teaching staff. Dr. Charles Sidney Burwell, also a former associate, Dean Waller S. Leathers, and Chancellor James H. Kirkland are the other signers of the message. Dean Leathers writes also regarding the assembly of the Faculty to hear the broadcasting of the Washington program. Chancellor Kirkland, in writing to the Committee, calls Dr. Welch "the most outstanding figure in the circle of those who have devoted their lives to medical education in America."

From San Francisco comes a telegram saying that "your old pupils . . . join with other members of the Staff of the University of California Medical School in extending to you their homage. . . ." The alumni named in the telegram are: Dr. Herbert W. Allen, Dr. Edwin I. Bartlett, Dr. Curle L. Callander, Dr. Ernest S. du Bray, Dr. Herbert M. Evans, Dr. Edgar L. Gilcreest, Dr. Henry Harris, Dr. Frank Hinman, Dr. Hans Lisser, Dr. Frank W. Lynch, Dr. Howard C. Naffziger, Dr. Rena K. Piper, Dr. George K. Rhodes, Dr. Ina M. Richter, Dr. Irwin C. Schumacher, and Dr. Miriam E. Simpson.

The Staff of the Hooper Foundation for Medical Research of the University of California, "deeply moved by the celebration . . . this morning at Washington," telegraphed "to their former trustee and counsellor an expression of devotion and esteem." This telegram was signed by the Director, Dr. K. F. Meyer.

Dean William Ophüls, of the Stanford Medical School, San Francisco, telegraphed, "The Faculty and students . . . assembled this morning in your honor and were rejoiced to hear your voice broadcast. . . . At a later meeting we had addresses by your local friends and former students. . . ."

From the school where Dr. Welch received his medical degree in 1875, the College of Physicians and Surgeons, New York, comes a telegram signed by Dean William Darrach. It reads: "The Faculty of the College of Physicians and Surgeons sends you affectionate greetings on your birthday. We are proud of your many accomplishments, grateful for your inspiration and example, and rejoice in your success and resultant honors. With deep esteem and sincere affection."

Other schools of medicine sending official telegrams, and officers who signed them are as follows: Dean Numa P. G. Adams, the School of Medicine of Howard University, Washington, D. C.; Dean Thomas Ordway, the Albany Medical College, Albany, New York; Dean Franklin C. McLean, the Medical Faculty of the University of Chicago; Professor Preston Kyes, the Laboratory of Preventive Medicine of the University of Chicago; Professor F. G. Novy and Professor Udo J. Wile, the Medical Faculty of the University of Michigan, and Dean W. McKim Marriott, the Washington University School of Medicine, St. Louis. Professor Kyes and Professor Wile are former pupils of Dr. Welch and Dean Marriott is a former colleague at Johns Hopkins.

More Tributes from Medical Teachers

Medical teachers from at least a dozen more institutions pay their tributes to Dr. Welch. "What an inspiration your life and work and the National and International Celebration of your Achievements," exclaims Dr. George M. Kober, Dean Emeritus of the Medical Department of Georgetown University, Washington, D. C., "must be to the younger members of the Medical Profession, desirous and capable of achieving!" Professor Thomas McCrae, of Jefferson Medical College, Philadelphia, medical colleague of Dr. Welch from

1899 to 1912, declares, "Nothing that anyone can say will add lustre to what you have done yourself." Professor Solomon S. Cohen, of the same institution, also sends his congratulations.

That Dr. Welch "may continue to retain membership in that illustrious band 'whom age has touched not with his finger frore,'" is the wish of Professor George de Schweinitz, of the University of Pennsylvania. Colleagues of his who send birthday tributes are, Dr. John A. Kolmer, Professor Edward B. Krumbhaar, and Professor David Riesman.

Professor William B. Coley, of Cornell University Medical School, sends his congratulations along with regrets that illness kept him away both from the meeting in Washington and the New York Academy of Medicine dinner. Professor Alfred F. Hess, of the University and Bellevue Medical College, congratulates both Welch and Johns Hopkins "for the lustre which you have shed upon its various departments." He is grateful to have felt "for many years the stimulation of your example and the encouragement of your approbation."

Professor Emeritus Charles G. Stockton, of the University of Buffalo, writes, "I wish I could in some way make you feel the appreciation which I hold of the work which you have done, and the value which you have been to me personally." Professor G. N. Stewart, of Western Reserve University, declares, "In his lifetime and largely by his influence American Medicine received an impulse which is very evident today and will undoubtedly affect its development for a long time to come." Professor William W. Graves, also at Western Reserve, congratulates Dr. Welch, "on having lived a life which . . . must forever be a constant inspiration to future generations of Physicians." Professor G. Carl Huber, of the University of Michigan, sends birthday greetings, as does his colleague, Professor Udo J. Wile, who joins fellow-students of Welch "in giving thanks that we had you as counsellor, teacher, and friend . . ."

"When I was a youngster," writes Professor Edwin O. Jordan, of the University of Chicago, "I was . . . and have been ever since, immensely heartened and stimulated by my all too infrequent personal contacts with you. . . .

Personal influence is a very subtile thing and I have often wondered if you fully realize how much you have done for our generation by being what you are."

Professor C. H. Bunting, of the University of Wisconsin, a pupil of Dr. Welch, and a member of his staff from 1903 to 1906, writes, "My affectionate appreciation of the privilege of having been, though but for a short time, a member of your staff, I shall not try to express, beyond saying that the decision to leave it was the hardest that I have been called on to make in my career." A more recent colleague in pathology, Professor Harry C. Schmeisser, now at the University of Tennessee, wires his "deepest respect, admiration, and devotion." A Hopkins medical graduate, who was a Fellow in Pathology, and is now at the University of Louisville, Professor Henry G. Barbour, sends a telegram signed jointly with Dr. Joseph Bell, in behalf of the Innominate Society, in Louisville. Professor Joseph Erlanger, of Washington University School of Medicine, St. Louis, who received his M.D. from Johns Hopkins and taught physiology there during 1901–06, writes: ". . . you are one of two or three of the many teachers . . . whose methods and personality I have set before me to emulate. . . ." Other medical teachers who sent greetings are: Professor William deB. MacNider, of the University of North Carolina, Professor Henry R. Viets, of Harvard University, and Professor James J. Walsh, of Cathedral College, New York.

Coming back to Baltimore again, we see a tribute from Professor Charles E. Brack, of the University of Maryland, and several from present colleagues of Dr. Welch. Professor Charles R. Austrian, medical graduate of Hopkins, who has taught there since 1910, expressed the hope in his greeting that the world would have "the privilege of your gracious presence for many years to come." Dr. Ernest H. Gaither, colleague of Welch since 1918, writes, ". . . your life and work always have been and shall ever be a flaming inspiration. . . ." Dr. John Samuel Fulton and Dr. Dean Lewis, also medical colleagues, sent birthday greetings.

From Educators in Foreign Countries

Besides the formal greetings from foreign institutions there were also numerous letters and telegrams from individuals engaged in medical education. Dr. T. F. Fitzgerald, of the School of Hygiene, the University of Toronto, writes in behalf of his "colleagues and associates . . . conveying all good wishes and heartiest congratulations." A medical alumnus of Hopkins, who assisted Dr. Welch in 1904–05, Dr. W. W. Francis, Librarian of the Osler Library at McGill University, Montreal, writes hearty congratulations and is anxious to see him again. Professor James Miller, of the Richardson Pathological Laboratory, at Queen's University, Kingston, Canada, expresses his "admiration for the series of researches which places your name in the Hall of Fame with the masters of modern medicine and scientific research."

The London School of Hygiene and Tropical Medicine sent greetings by radiogram, referring to its simultaneous celebration in honor of Dr. Welch. Sir Andrew Balfour, Director of this School, who delivered an address at the celebration, writes, "I am sure you would have been gratified if you had seen how the reference to yourself and to your manifold labours was received by a representative and appreciative company." Sir Aldo Castellani, lecturer at this School, also sent congratulations by radiogram.

"Outside your native land, there can be few places where you have more friends than in Cambridge," writes Professor H. R. Dean, of the University of Cambridge. "We shall all celebrate you and our science of pathology on the 8th of April."

Sir Almroth Wright, Professor of Experimental Pathology at the University of London, sends a cable, quoting Burke and Swinburne, which reads,

> "To Professor Welch on his eightieth birthday.
> Let this carry my congratulations and give you assurance
> of my 'enthusiastic, distant, and respectful love.'
> 'The fathers of their spirits how may men adore them!'"

Congratulatory messages from others at foreign institutions were those of Professor John F. Fulton, at Oxford University (on leave from the Yale School of Medicine), Sir E. A. Sharpey Schafer, of the Faculty of Medicine at the University of Edinburgh, and Dr. Charles Singer, Lecturer in the History of Medicine at the University of London.

Professor Léon Bernard, of the University of Paris, writes, "Bien qu'il semble tout à fait invraisemblable que l'on ait à célébrer le quatrevingtième anniversaire de votre naissance . . . je tiens à vous dire que je me réjouis avec tous ceux qui vous connaissent de vous féliciter de vous voir une robustesse qui nous permette d'être sûrs de pouvoir fêter dans beaucoup d'années votre véritable quatrevingtième anniversaire."

From the University of Breslau, where Dr. Welch had studied under Cohnheim in 1877, came the following radiogram: "Dem um die Wissenschaft hochverdienten Jubilar Professor Welch senden zum achtzigen Geburtstag ihre herzlichsten Glückwünche Hygiene Institut Universität Breslau." This is signed by Professor Richard Pfeiffer, Professor Carl Prausnitz, and Dr. Herbert Lubinski. Professor Prausnitz wrote separately to Dr. Welch, "There are many colleagues in our country who are thinking of your part in bacteriology with pride and gratitude."

Professor Henry E. Sigerist, Director of the Institute of the History of Medicine at Leipzig University, cabled his congratulations from Paris. Dr. Karl Sudhoff, Director Emeritus of this Institute, who in October, 1929, delivered an address at the inauguration of the Department of the History of Medicine at the Johns Hopkins University, writes to Dr. Welch concerning his birthday celebration: "Es ist ja zum Nationalen Feiertage gestempelt worden für die ganzen Vereinigten Staaten, dieser grosse Festtag der nordamerikanischen Medizin, und mit Recht: es wird damit zugleich zum Ehrentage der amerikanischen medizinischen Wissenschaft, die einen Ehrenplatz einnimmt heute und noch für lange Zeit."

Professor Paul Diepgen, of the Institute of the History of Medicine at the

University of Freiburg, Germany, writes, ". . . erlaube mir . . . Ihnen im Namen aller Mitarbeiter des neuen, im Werden begriffenen Instituts für Geschichte der Medizin und der Naturwissenschaften herzlichst zu gratulieren. . . . Sie werden uns immer ein Vorbild ausgezeichneter und erfolgreicher Forschertätigkeit bleiben."

Congratulations were cabled by Professor Andrija Stampar, of the Royal University, Zagreb, Yugoslavia. "Felicitations and admiration" were expressed in a cablegram sent by the State Serum Institute, Copenhagen, Denmark.

From China came a cablegram reading, "Trustees and staff of Peiping Union Medical College, assembled in your honor, with grateful remembrance of your services to this College, send heartiest congratulations." It may be recalled that Dr. Welch advised the Rockefeller Foundation in the formation of the China Medical Board, and that he visited China in 1915 and again in 1921 when Peiping Union Medical College was opened. Roger S. Greene, Acting Director of the College, writing to Dr. Welch, says, "We can never forget the debt that we owe you. . . ." Professor Francis R. Dieuaide, of the Faculty, former pupil and colleague of Welch, expresses his appreciation in similar terms.

Welch and the Foundations

Recognition of Dr. Welch's close cooperation with philanthropic corporations in promoting medical research and education is given in many communications. Testimony of the highest importance appears in a letter, dated April 1, 1930, addressed to Dr. Welch by Abraham Flexner, who was for many years Director of Medical Education and Studies of the General Education Board. Mr. Flexner writes:

> "It is not too much to say that you have been the cornerstone of the entire development in modern medicine and public health in this country: without you, no Johns Hopkins Medical School, as we know it; no Johns Hopkins

School of Public Health; no chair of the History of Medicine—and without these things, none of their repercussions and reverberations, such as the Rockefeller Institute and the new Cornell and all the other great things which are outgrowths of the work you have done in Baltimore. . . . I should myself have done nothing without you—and in justice, I should add, without Mall,—for from you and from him I learned all that I know of medical education, and so to you is to be traced, without the slightest doubt, whatever good has been accomplished in that field by the General Education Board and the Rockefeller Foundation. I am grateful to you for your friendship and help—grateful beyond power of expression."

Dr. Welch, it should be remembered, has been the President of the Board of Directors of the Rockefeller Institute for Medical Research ever since its foundation, in 1901.

John D. Rockefeller, Jr., who could not attend the meeting in Washington because of temporary illness, telegraphed to Dr. Welch: "I am bitterly disappointed not to be present at your birthday party today. Nothing short of the doctor's peremptory orders would have prevented. For all that you have done in these four score years and all that you are I am proud and grateful beyond expression. Father asks me to send you his congratulations on this memorable day. Mrs. Rockefeller joins me in affectionate greetings."

Wickliffe Rose, who was for several years President of the General Education Board, cabled from Algiers to the Committee his congratulations and recognition of Dr. Welch's "distinguished service to the cause of hygiene and public health throughout the world."

Mrs. Richard M. Pearce, Jr., of New York, whose husband was General Director of Medical Education of the Rockefeller Foundation at the time of his death this year, writes, "I want you to know that Dick would have been with you to offer his love and appreciation of all you have done. . . ."

From the International Health Division of the Rockefeller Foundation came a message with "affectionate felicitations on notable milestone in life

of beneficent service." This was sent in behalf of the Scientific Directors of the Division, who are: Dr. Rufus Cole and Dr. Eugene L. Bishop, former students under Dr. Welch, and Dr. Louis I. Dublin, Dr. William H. Frost, Dr. Frederick F. Russell, Dr. W. G. Smillie, and Dr. C.-E. A. Winslow.

Dr. Peyton Rous, now at the Rockefeller Institute for Medical Research, medical graduate of Hopkins in 1905 and the following year Resident House Officer at the Johns Hopkins Hospital, writes that "many of us have a happy pride in your life as an omen of our civilization."

Members of the staff of the Rockefeller Institute for Medical Research, not elsewhere mentioned, who sent greetings are: Dr. P. A. Levene, Dr. Leanor Michaelis, and Dr. Walter A. Jacobs. Dr. George V. Heiser, of the Rockefeller Foundation, cabled his congratulations from Naples, Italy.

"The Carnegie Institution owes you much for your constructive study of its program during the years in which it was developing," writes the President, John C. Merriam, from Washington, D. C., who adds "grateful appreciation of your counsel and advice through the years in which I have had the privilege of coming in contact with your work." Dr. Welch has been a trustee of Carnegie Institution of Washington since 1906. Dr. Charles B. Davenport, Director of the Department of Genetics of the Institution, expresses gratitude to Welch for his "generosity . . . in becoming a member of the Scientific Board of the Eugenics Record Office," which he helped in various ways to establish. A. F. Blakeslee and Dr. Albert Mann, both of Carnegie, send their greetings through the Committee.

Another foundation to which Dr. Welch has given counsel of far-reaching importance is the Milbank Memorial Fund, New York. He has been Chairman of its Advisory Council since 1922. Albert G. Milbank, President of the Fund, in sending his birthday greetings, spoke of the "Tributes of praise and affection" which Dr. Welch would receive "from those all over the world whose lives have been affected by your inspiring personality." Edward W. Sheldon, former President of the Milbank Memorial Fund, refers gratefully

to Dr. Welch's presence at the Annual Meeting of the Fund on April 3 and then sends "warmest greetings . . . on the anniversary of the happy day which brought you to the world."

From the Trudeau Foundation, Saranac Lake, comes a telegram, signed by the Director, Dr. Edwin R. Baldwin, expressing warmest congratulations "from your sons and foster children of the Trudeau Foundation and School, whose inspiration you have been. . . ." Dr. Lawrason Brown, former pupil of Welch, Chairman of the Medical Board of the Trudeau Sanatorium, wires, "My feet cannot keep my heart at home. . . . If wishes will do it, you will be with us forever."

Dr. W. S. Rankin, Director of the Hospital and Orphan Sections of the Duke Endowment, Charlotte, North Carolina, writes to the Committee of his "profound appreciation of the great service" of Dr. Welch.

The Wilmer Foundation, New York, was established a few years ago largely because of the foresight and activity of Dr. Welch, who is a great admirer of Dr. William H. Wilmer and his work. When Dr. Wilmer became a member of the General Committee for the Celebration, he said of Dr. Welch, "reckoned by what he has done for the Art and Science of Medicine, he will be over one hundred and eighty." The congratulations of the President and Trustees of the Wilmer Foundation were forwarded by Henry Breckinridge, Secretary. There were also greetings from Mrs. Robert Weeks Kelley, of New York, whose husband was active in establishing this Foundation, of which he became the first president. William I. Walter, of New York, whom Dr. Welch met in connection with the campaign for the Foundation, sent four boxes of cigars, along with his greetings.

At the Mayo Foundation, Rochester, Minnesota, the Welch influence is definitely felt. "My colleagues and your pupils at the Mayo Clinic join me in congratulations," wires his former student, Dr. William Carpenter MacCarty. Dr. H. E. Robertson, also of the Mayo Clinic, writes: "In the years of my associations in pathology I have not only grown to admire and reverence you

as the 'Father of American Pathology,' but to esteem and love you as a wise, patient and inspiring confrère." Dr. L. G. Rowntree, medical alumnus of Hopkins, who taught medicine there from 1907 to 1916, and is now Chief of the Division of Medicine of the Mayo Foundation, sent his congratulations by radiogram from Wiesbaden, Germany. Another former student of Welch, now at the Clinic, Dr. Henry F. Helmholz, wired birthday greetings.

Dr. George H. Weaver, of the John McCormick Institute for Infectious Diseases, Chicago, wrote, "There is no one whom I esteem more highly nor any one whom I would rather honor."

At the William H. Singer Memorial, Pittsburgh, Dr. George H. Robinson, recalls his teaching of bacteriology, 1918 to 1924, at the Johns Hopkins School of Hygiene and Public Health. He writes, "I shall always cherish the memory of the six years I spent . . . under your leadership."

The National Institute of Health, established this year in Washington, D. C., received strategic support from Dr. Welch, which is remembered by Dr. Charles H. Herty, of the Chemical Foundation, New York. He writes of "that morning you spent in Washington on the 2nd of March last year, urging the senators to support the Ransdell Bill, with such good effect that unanimous passage was secured that night."

Dr. Henry S. Wellcome, of London, founder and director of the Wellcome History of Medicine Museum, as well as of research institutions, writes, "Your great services to mankind by untiring research, and innumerable contributions to the development of medical science, form a glorious record."

Guests at the Pasteur Institute celebration were named in a radiogram sent by Dr. Selskar M. Gunn, Vice President of the Rockefeller Foundation in Europe. They were: Professor Albert Calmette, Professor Louis Martin, Dr. Sazarac, Professor Alexandre Besredka, Professor Constantin Levaditi, Professor M. Weinberg, Professor Ernest Fourneau, Dr. Harry Plotz, Professor Pierre Lecomte du Noüy, Dr. Pasteur Vallery-Radot, Professor Emile Brumpt, Professor Charles Achard, Dr. M. Miyajima, Dr. Stephen d'Irsay, Professor

Henry Sigerist, Dr. Edmund L. Gros, Dr. Rupert Blue, Dr. Thomas Buckler, Dr. W. E. Tisdale, Dr. George K. Strode, Dr. Daniel P. O'Brien, Dr. Richard M. Taylor, and Dr. P.-F. Armand-De Lille.

Professor Lecomte du Noüy wrote, immediately after the luncheon was over, that the ceremony "was just as you would have liked it: we all knew you, we all loved you, and . . . the food and wines were simply superb."

Public Support of Public Health

Public support of public health, both through official and voluntary agencies, has been effectively aroused through the energy and foresight of Dr. Welch in cooperation with leaders in the various fields.

From the National Tuberculosis Association, of which Welch was President in 1910–11, and of which he is now an honorary vice president, comes a telegram expressing "homage and appreciation of the great contribution you have made to the fight against tuberculosis." This is signed by the Managing Director, Dr. Kendall Emerson. Incidentally, Dr. Emerson had previously paid a fine tribute to Dr. Welch when he asked the Committee for an extra ticket so that his son, a medical student at Harvard, might attend the Washington celebration. "He would preserve the memory of this occasion as a very precious experience in connection with his education," wrote Dr. Emerson. Dr. Lee K. Frankel, a director of the Association, wires, ". . . your career has been an inspiration to all of us. . . ."

The Maryland Tuberculosis Association dedicated the April issue of "The Double Barred Cross" to Dr. Welch, ". . . in acknowledgment of your help and inspiration during the past years." William B. Matthews, Managing Director, writing about this, adds, "We are proud of the fact that you are Honorary Vice-President. . . ." Dr. Bernard L. Wyatt, prominent in tuberculosis work, wired greetings from Tucson, Arizona.

In the field of mental hygiene Dr. Welch has been a strong influence for more than twenty years. He "has given his hearty support to our work,"

reads an excerpt from the minutes of the Board of Directors of The National Committee for Mental Hygiene, of which Clifford W. Beers is Secretary, "first by assisting the author of 'A Mind That Found Itself,' in the founding of The National Committee for Mental Hygiene, then by becoming Vice President and President and now, as its Honorary President, and later by serving as Honorary President of The American Foundation for Mental Hygiene, as Chairman of the Organizing Committee of The International Committee for Mental Hygiene and as a Vice President of the First International Congress on Mental Hygiene. . . . Those interested in mental hygiene cannot be sufficiently grateful. . . ."

John R. Shillady, of New York, also prominent in this work, wrote a formal acceptance of the Committee's invitation and then added, on the same sheet, "May God forgive us all if the formalities of the occasion, including this of my own, dim in any way, the affection, no less than the honor, in which those of us of lesser age and merit hold 'Daddy' Welch."

Dr. Welch was President of the American Social Hygiene Association from 1916 to 1919, and is now Honorary President and Chairman of the General Advisory Committee. Dr. Edward L. Keyes, the President, says in his official greeting, ". . . you are revered and beloved for your personal leadership. . . ." Dr. William F. Snow, General Director, writes, "I do not know how you manage to keep all your 'welfare' children in mind, but I am sure your continued leadership in many health conservation agencies . . . constitutes a mighty influence." Dr. Valeria Parker, Director of Field Extension of this Association, wires, ". . . I am grateful for your outstanding record of achievement, your years of unselfish service, and the inspiration of your friendship."

"The Cleveland Social Hygiene Association is meeting today," says a telegram, "in honor of your long interest and great service to the national social hygiene movement. Your distinguished . . . cooperation . . . has been an outstanding factor in its success. . . ." A congratulatory message from the

Erie Social Hygiene Association is signed by President John Chamberlain Ward, Bishop of the Episcopal Diocese of Erie, Pennsylvania. From Erie also came a message signed by Ross Pier Wright, Chairman of the Committee of Sixteen, saying, ". . . your years of achievement have been an inspiration in the field of social health."

Greetings from the Board of Directors of the Missouri Social Hygiene Association were telegraphed by Dean A. M. Schwitalla, President.

The National Society for the Prevention of Blindness, through its Managing Director, Lewis H. Carris, is thankful to Dr. Welch "for his great work in the advocacy of public hygiene and preventive medicine, of which the movement for the prevention of blindness is such an integral part."

Congratulations from the Maryland Society for the Prevention of Blindness, of which Dr. Welch is a vice president, were sent in behalf of the Board of Directors and Officers by Mrs. Francis Woodward Little, Executive Secretary.

The American Society for the Control of Cancer sent an enthusiastic tribute to Dr. Welch's "distinguished service in the field of medicine and its allied sciences." The Managing Director of this Society, George A. Soper, also wrote a personal message saying, "May you enjoy for many years to come the health which you have done so much to promote in others."

Since "the cause of child health in our country has been advanced by . . . Dr. Welch's lifetime of devoted and distinguished service . . .," it was resolved by "the staff of the American Child Health Association . . . in meeting assembled," to record its appreciation of Dr. Welch's work and to send "its friendly greeting." The resolutions were signed by Dr. S. J. Crumbine, General Executive. Mrs. Aida de Acosta Breckinridge, of this Association, sent her greetings by telegram.

A distant institution which feels the influence of Dr. Welch is the American Home for Yugoslav Children, at Selce, Yugoslavia. Its Director, Madame Slavko Grouitch, expresses appreciation to him for being "one of its most

constant friends and benefactors," and states that the preventive work at the Home "is founded on his teachings."

General public health organizations in various parts of America pay their tribute to Dr. Welch. The Southern California Public Health Association gave a banquet at Los Angeles in his honor, on April 8, at which the Secretary, Dr. Giles S. Porter, was instructed to wire congratulations. The Kansas State Public Health Association, in session the same day, telegraphed congratulations through its President, Dr. John Street Fulton.

An enthusiastic letter comes from Arthur W. Towne, Secretary of the Onondaga Health Association, Syracuse, New York. "At a meeting of the Board of Directors of the Onondaga Health Association, the voluntary agency participating in the Syracuse Health Demonstration," he writes, "a resolution was adopted directing me to send you our heartiest felicitations. . . . Especially do the people of Syracuse owe much to you for your part in . . . the Health Demonstration which has been carried on in our behalf with the advisory and financial assistance of the Milbank Memorial Fund, of whose Advisory Council you are the Chairman."

The National Health Council, through its President, Dr. William F. Snow, forwarded resolutions bespeaking for Dr. Welch, "the congratulations and affectionate regards of all its member organizations, whose boards of directors have continuously had the inspiration and practical benefit of his cooperation and guidance."

Many individuals serving in public health administration sent congratulations. "During my study in the Johns Hopkins School of Hygiene," writes Dr. E. L. Bishop, Commissioner of Public Health for the State of Tennessee, "my casual acquaintance with Dr. Welch grew into a friendship which I have treasured as one of the most precious experiences of my career." Dr. C. W. Garrison, State Health Officer of Arkansas, who did graduate work at Johns Hopkins, wires, "May you round out a full century as dean of medicine and men. . . ." Dr. Huntington Williams, graduate both of the Medical School

and the School of Hygiene at Johns Hopkins, now District State Health Officer, at Albany, New York, observes that "your devoted friends and students all over the world vie with one another to do you honor."

Dr. Henry Albert, State Commissioner of Health of Iowa, credits Welch with having "contributed more than . . . any other person to the placing of medicine and 'public health work' considered together on a high plane and a sound basis in the United States." Other enthusiastic greetings came from Dr. Paul B. Brooks, Deputy Commissioner of Health of the State of New York; Dr. Andrew A. Cairns, Director of the Department of Public Health of Philadelphia; Dr. G. W. Goler, City Health Officer, Rochester, New York; Dr. C. A. Harper, State Health Officer of Wisconsin; Dr. W. H. Guilfoy, Registrar of Records in the Department of Health of New York City; Dr. W. T. Henshaw, State Health Commissioner of West Virginia; Dr. W. T. Hopkins, City Health Officer of Lynn, Massachusetts; Dr. Elias Pratt, City Health Officer of Torrington, Connecticut, and Dr. Harry E. Welch, City Health Officer of Youngstown, Ohio.

Nathan Straus, of New York, active in demonstrating the value of distributing Pasteurized milk, as well as in other social projects, telegraphs appreciation of Welch's "wonderful work for the prevention of disease."

To this group of tributes may be added also a letter from H. deB. Parsons, consulting engineer of New York, who recalls with pleasure "the time we worked together in an effort to prevent pollution of rivers."

Judge John Barton Payne, Chairman of the American Red Cross, pays tribute to Dr. Welch for many things, including his "personal interest in Red Cross as Chairman of the Health Advisory Committee," and his "participation in the founding of the League of Red Cross Societies." Then he adds, "We like to think of a life like yours as typifying the true spirit of Red Cross."

Besides the formal greeting from the British Ministry of Health, given on another page, there is a radiogram from Dr. Thomas Carnwath, in the same service. It reads, "Amico carissimo et doctissimo natali die gratulationes."

Praises from Professional Organizations

Birthday tributes for Dr. Welch came from many organizations of doctors and surgeons. Dr. Edward B. Heckel, Chairman of the Board of Trustees of the American Medical Association, of which Dr. Welch was President in 1910–11, sent the following telegram:

> "The Board of Trustees of the American Medical Association, speaking for one hundred thousand American physicians, felicitates you on your eightieth birthday celebration and congratulates you on the marvelous recognition of your contribution to the advancement of medical science and of the public health, as testified to by celebrations throughout the world. May you live long to enjoy still further the appreciation that is your merit, and to carry forward the school of medical history which represents one of your crowning achievements."

The Secretary and General Manager of this Association, Dr. Olin West, wrote to the Committee arranging the Celebration, "I doubt that there is any physician in the United States, or any person connected with public health activities who would not be delighted to participate in any movement to honor Dr. William Henry Welch."

The Editor of the Journal of the American Medical Association, Dr. Morris Fishbein, asked the Committee to convey to Dr. Welch his "sincere personal congratulations on . . . having completed so many useful things for the advancement of medical science and for the good of humanity."

The Association of American Physicians, at its forty-fifth annual meeting, passed a resolution of heartiest congratulations to Dr. Welch "on the happy achievement of his eightieth birthday." It conveys "sincere appreciation of the great significance he has had for American medicine." The information is sent by Dr. J. H. Means, Secretary. Welch was President of this Association in 1901.

Reference has been made elsewhere to the dinner given on April 4 by the

New York Academy of Medicine. Dr. John A. Hartwell, President of that institution, unavoidably absent from the dinner, wrote the next day that this was one of "the times when the disappointments of this life are hard to bear." He adds, "I know that the Academy was greatly honored by the fact that you, in the midst of honors being conferred upon you by the entire world, were willing to make the effort to be the guest of the Academy."

Formal action by the Council of the Ohio State Medical Association, is reported by Dr. S. J. Goodman, Secretary, in a telegram telling of the "esteem, admiration, pride, and appreciation" of the medical profession of the state, and joining in "acclaim to you as one who has contributed in singular and outstanding fashion to the welfare of mankind." The President of the Medical Society of Virginia, Dr. Charles R. Grandy, sent personal congratulations.

Greetings in behalf of local organizations came from Dr. G. A. Kohler, President of the Washington County Medical Society, Hagerstown, Maryland, and from Dr. P. D. Hay, Jr., Secretary of the Florence County Medical Society, Florence, South Carolina. There is a congratulatory telegram from Dr. Thomas G. Greig, President of the Allegheny County Medical Society, which was assembled on April 8 at Pittsburgh.

Another telegram comes from "the members of the Academy of Medicine of Cincinnati." Referring to the celebration held jointly by this Academy and other groups in Cincinnati, Dr. Kennon Dunham writes, "We are proud to be a part of this international tribute."

Congratulations and best wishes are sent, for the Academy of Medicine of Cleveland, by its president, Dr. V. C. Rowland. The Stark County Medical Society, Canton, Ohio, sends a greeting "in recognition of your loyal and most valuable service to the entire medical profession." It is signed by Dr. F. S. Van Dyke, Secretary-Treasurer.

"Acting under instructions embodied in a resolution heartily and unanimously endorsed at the last session of the House of Delegates of this Society," Dr. A. F. Cooper, Secretary of the Memphis and Shelby County Medical So-

ciety, writes, "It is given to few men, either by chance of birth, circumstance, opportunity, or ability to . . . attain the heights you have trod for years. And it brings to us, members of the profession of which you are a member, a sense of proud humility. . . ."

The St. Louis Medical Society, at a meeting held April 8, dispatched congratulations and the hope "that the medical profession may continue to have the benefit of your wise counsel for many years to come." This was signed by Dr. Vilray P. Blair, President, and Dr. Herbert S. Langsdorf, Secretary. From the Hot Springs and Garland County Medical Society, in Arkansas, comes a telegram of congratulation signed by the Secretary, Dr. G. A. Herbert.

In Portland, Oregon, "nearly one hundred physicians, surgeons, educators, clergymen, social workers, and socially-minded laymen," were assembled on April 8 at a joint meeting of the City and County Medical Society and the Oregon Social Hygiene Society in honor of Dr. Welch. These admirers "unanimously and enthusiastically adopted" resolutions paying tribute to "his self-effacing efforts during the last half century . . . of inestimable benefit to the people of the world, ameliorating suffering, prolonging life, and assuring happiness and health to many who would not have fared so well otherwise, and inspiring high courage and unceasing endeavor among his co-workers. . . ." The resolutions, sent by telegram, were signed by Dr. Frederick A. Kiehle, President of the City and County Medical Society, and Walter R. May, President of the Oregon Social Hygiene Society.

Professional organizations in foreign countries offered their greetings in enthusiastic terms. Sir John Rose Bradford, President of the Royal College of Physicians of London, writes as follows:

> "On behalf of the Royal College of Physicians of London, I beg to tender to you the best wishes of the College on the occasion of your eightieth birthday, and to express the admiration the College entertains for the great services you have rendered to the cause of Medicine in so many of its branches.

"You have not only added much to our knowledge of fundamental questions in pathology, but the range of your work and interests has been much wider. They have embraced not only problems directly and indirectly connected with actual disease, but have more especially in recent years extended to the development of methods for the prevention of disease. Further, the College is very appreciative of the efforts you have made for the promotion of the study of the History of Medicine.

"For all these varied services to the cause of Medicine, the Royal College of Physicians of London is grateful to you and very wishful for your continued welfare."

Dr. Geoffrey R. Edwards, Secretary of the Royal Society of Medicine, forwards an engrossed greeting reproduced in this book. Dr. Norman Walker, President of the Royal College of Physicians of Edinburgh, cables congratulations for Dr. Welch, saying, "The College is proud of the fact that his name is enrolled on the list of its Honorary Fellows." Cabled congratulations came also from the Royal College of Physicians of Ireland and from the Pathological Society of Great Britain and Ireland, both of which sent engrossed greetings reproduced on other pages. Dr. Matthew J. Stewart, Secretary of the Pathological Society, sends personal greetings from himself and Mrs. Stewart, saying, "We shall ever retain a delightful memory of our visit to Baltimore in 1926, and of our meeting with you. It was the outstanding event of a very exciting and eventful tour."

The Secretary of The Osler Club, in London, Dr. Alfred W. Franklin, greets Dr. Welch as a "Friend of The Osler Club." He writes: "At our last meeting here on April 8, you were elected to that position with acclamation . . . and we dedicated the meeting to your honor." The Canadian Medical Association Journal sends congratulations through its editor, Dr. A. G. Nicholls.

The Berlin Medical Society sends a radiogram, signed by Professor I. A. Goldscheider and Dr. C. Adam, announcing the election of Dr. Welch as

Pathological Society of Great Britain and Ireland

1930

Dear Dr Welch,

We, your fellow members of the Pathological Society of Great Britain and Ireland send you our hearty congratulations and good wishes on the occasion of your eightieth birthday.

On this occasion we recall your many contributions to the advancement of our science by research, your fame as a teacher and we remember with pride that you are an Honorary Member of our Society.

We know the honour and affection in which you are held by your pupils and your colleagues in the land of your birth and in the great medical school which you have made your home. It is our wish to express to you on behalf of the Pathological Society of Great Britain and Ireland the love, admiration and respect in which you are held by all your colleagues and friends in this country.

We remain,

Yours very sincerely,

Robert Muir
A. E. Boycott
James McIntosh
J. A. Murray
J. G. Greenfield
C. H. Browning
J. Lorrain Smith
H. R. Dean
E. H. Kettle
T. Shennan
W. W. C. Topley
H. D. Wright
Matthew J. Stewart

From the tribute engrossed on vellum and presented to Dr. Welch by the Pathological Society of Great Britain and Ireland, Cambridge. The signatures are: Robert Muir, A. E. Boycott, James McIntosh, J. A. Murray, J. G. Greenfield, C. H. Browning, J. Lorrain Smith, H. R. Dean, E. H. Kettle, T. Shennan, W. W. C. Topley, H. D. Wright, Matthew J. Stewart.

an Honorary Fellow. The certificate of election is reproduced on another page.

The German Society for Microbiology sends a letter, signed by Professor M. Hahn, Chairman, and Professor R. Otto, Secretary, which reads as follows:

> "Zu Ihrem 80. Geburtstage sprechen wir Ihnen namens der Deutschen Vereinigung für Mikrobiologie die aufrichtigsten Glückwünsche aus. Die Vereinigung gedenkt Ihrer hervorragenden wissenschaftlichen Arbeiten, die Ihren Namen in der Mikrobiologie unvergesslich gemacht haben, und wünscht Ihnen noch viele Jahre unveränderter geistiger und körperlicher Frische."

After this glance at more distant groups of professional men our attention is turned again to Baltimore by a letter from Dr. E. M. K. Geiling, Secretary of the Johns Hopkins Medical Society, conveying greetings in behalf of the President and members, and reflecting truly Welchian modesty, in the statement, "we are all the more grateful when we realize that our organization is but one of many that draws upon your time and support."

More Tributes From Doctors

Johns Hopkins medical graduates in addition to those already named sent their greetings from all parts of the country. From Denver, Colorado, came a telegram reading: "The undersigned, representing some two score of your pupil friends in Colorado, hail this day as commemorative through you of great accomplishments in the elevation of standards in American medical education. . . ." The alumni signers are: Dr. William A. Campbell, Jr., Dr. Charles W. Dorsey, Dr. Franklin G. Ebaugh, Dr. Harold G. Garwood, Dr. George B. Gilbert, Dr. Clarence B. Ingraham, Dr. Margaret Long, Dr. Alfred Mann, Dr. S. W. Schaefer, Dr. Charles E. Sevier, Dr. John A. Sevier, Dr. Judson T. Williams, Dr. W. Whitridge Williams, and Dr. Shannon L. Van Valzah. The other signers are: Dr. Henry Sewall, who was Fellow and Associate in Biology from 1876 to 1881; Dr. Alexius M. Forster, and Dr.

Johanna Gelien, both former assistants in medicine, Louis G. Carpenter, consulting engineer, Dr. J. Rosslyn Earp, and Dr. James J. Waring, former students at the Johns Hopkins University.

"I treasure the memory of my 'make-up examination' in French at your library . . .," writes Dr. Theodore F. Riggs, of Pierre, South Dakota, Hopkins M.D. in 1903.

Dr. James H. Chesnutt, Hopkins M.D. in 1907, now of Hot Springs, Arkansas, writes enthusiastically of the dinner of the Hot Springs and Garland County Medical Society, at which Dr. Frank Vinsonhaler, student of Dr. Welch at Bellevue, delivered an address, which is published in this volume.

Other Hopkins medical graduates who sent greetings are: Dr. Montrose T. Burrows, of Pasadena, California; Dr. Henry N. Costello, and Dr. James E. Davis, both of Hartford; Dr. Arthur L. Fisher, of San Francisco; Dr. Morris Flexner, of Louisville, who sent a telegram jointly with Dr. J. A. Flexner; Dr. Harry M. Kaufman, of Washington, D. C.; Dr. Louis W. Ladd, of Cleveland; Dr. Harry Linden, of Harlan, Kentucky; Dr. Karl H. Martzloff, of Portland, Oregon; Dr. Daniel P. O'Brien, of Paris; Dr. S. W. Schaefer, of Colorado Springs; Dr. Edwin H. Schorer, of Kansas City; Dr. Walter R. Steiner, of Hartford; Dr. W. W. Waite, of El Paso; Dr. E. Robert Wiese, of Schenectady, and Dr. Charles K. Winne, Jr., of Albany. There is a telegram also from Dr. Thomas P. B. Jones, of Riverside, California, who was graduated in 1925 from the Johns Hopkins School of Hygiene and Public Health.

The Chief Medical Officer to the Supreme Bench of Baltimore, Dr. John Rathbone Oliver, who is also Associate in the Johns Hopkins Institute of the History of Medicine, writes, "I am more grateful to you than I can say for all your past kindnesses and for the encouragement that you have given me. . . ."

"I have been living largely in community with your thought," writes Dr. Rudolph Matas, of New Orleans, "while engaged in the study of Post Operative Thrombosis and Embolism. Your contribution to the subject

written . . . in 1899 is still a good warm meal for the fellow who, in 1930, has a keen appetite for thrombi and emboli."

Here, incidentally, may be cited the greetings from two publishers. From Paul B. Hoeber, Inc., medical publishers, of New York, comes a note signed by Mr. Hoeber, who sends congratulations and adds, "'The Annals of Medical History' is indeed fortunate in having you as an associate editor." Charles C. Thomas, publisher of medical and other scientific books, of Springfield, Illinois, says of Dr. Welch's influence on American publishing, "Many of our great journals have originated through your effort or influence, many of our better books can be traced to some development of your own." Mr. Thomas then announces the publication of a book with a dedication to Dr. Welch. It is a "reproduction of William Withering's 'An Account of the Foxglove and Its Medicinal Uses,' reprinted in its original form, with a Preface and Biographic Sketch by Dr. Hirschfelder." The reference is to Dr. Arthur D. Hirschfelder, of Minnesota University, former student and colleague of Welch.

The Director of Research at the National Jewish Hospital in Denver, Dr. H. J. Corper, wires congratulations for himself and associates, saying, "Your birthday recalls an inspiration to all of us interested in the progress and welfare of medicine." Greetings from the staff and sisters of Mercy Hospital, at Wilkes-Barre, Pennsylvania, were sent by the Superintendent, Sister Mary Bernard. There were also greetings from the staff of the Warren City Hospital, Warren, Ohio.

At White Plains, New York, a group of doctors held a luncheon in Dr. Welch's honor on April 8 and wired congratulations signed by Dr. Edwin G. Ramsdell.

Physicians and surgeons not referred to in other divisions of this survey who congratulated Dr. Welch may be grouped here. Dr. W. W. Keen, of Philadelphia, too ill to attend the meeting in Washington, sends his hearty greetings. Dr. Wendell C. Phillips, of New York, writes to the Committee,

"Dr. Welch deserves this wonderful compliment, both on account of his personality and for his distinct service to mankind."

"Salutem dico gratulor ex animo maximo ad natalem tuum," reads a telegram from St. Louis, signed by Dr. and Mrs. Francis Reder. "For more than thirty years," writes Dr. E. MacD. Stanton, of Schenectady, to the Committee, "Dr. Welch has represented one of my ideals." Dr. Hubert A. Royster, of Raleigh, North Carolina, sends his wish to Dr. Welch, "for as many more birthdays as you would like." Dr. Frederic V. Beitler, of Baltimore, sends greetings for himself and his family. Another fellow townsman, Dr. Robert X. Giering, is confident that the "great good that mankind will reap from your having lived will pass from generation to generation."

John Milton Griffith, of the Maryland Military Department, sends congratulations and mentions that he is "the eldest lineal descendant of Dr. Charles Frederick Wiesenthal . . . the founder of the first attempt at a medical school in Baltimore."

A sermon on Dr. Welch preached April 20 in St. John's Church, Hartford, impressed Dr. C. C. Beach, of that city, who wrote a letter about it the next day.

Dr. Aristides Agramonte, of Havana, who was associated with Lazear and Dr. Welch's pupils, Reed and Carroll, in discovering that yellow fever was transmitted by mosquitoes, and is now the only survivor of that famous group, writes of his pleasure in reading "of the many testimonies . . . in pale recognition of your unexcelled achievements in science and your extraordinary personality." From Manila came the warm personal greetings of Dr. José Albert, together with two boxes of cigars, and grateful recollections of Welch's hospitality to him in Baltimore.

Other doctors who sent tributes are: Dr. J. F. Axtelle, Dr. M. A. Bailey, Dr. N. Herbert Bailey, and Dr. Philip D. Bunce, all four of Hartford; Dr. T. D. Burgess, and Dr. W. H. Burgess, of Williamson, West Virginia; Dr. William Lee Corey, of Kansas City; Dr. D. W. Cunningham, of Meadville, and Dr. Stanley L. Freeman, of Wilkes-Barre, Pennsylvania; Dr. Smith Ely Jelliffe,

of New York; Dr. J. Shelton Horsley, of Richmond; Dr. Charles H. Miner, of Wilkes-Barre; Dr. H. Sinclair Tait, of Taunton, Massachusetts, and Dr. R. H. Hazeman, of Paris.

The General Academic World

Many fields outside of medicine are represented among the messages from Dr. Welch's friends in the academic world. Allusion to the honorary degree of Doctor of Laws which Princeton University conferred on him in 1910 is made in a telegram from President John Grier Hibben, which reads in part: "On behalf of Princeton University, of which you are an adopted son, and for myself personally, I wish to express our very hearty and affectionate congratulations upon the day which we celebrate here in spirit. We are very proud to have your name on our Princeton roster." Wilson Farrand, Clerk of the Board, wrote on April 11:

> "At a meeting yesterday of the Trustees of Princeton University the Board instructed me, by unanimous vote, to write to you expressing, both for the University and for themselves individually, their high appreciation of the extraordinary service that you have rendered during the past half century to the advancement of medical science and of the health of mankind."

President R. B. von Kleinsmid, of the University of Southern California, offered Dr. Welch the degree of LL.D., to be conferred at Commencement. The regulations, however, required the presence of the candidate, and Dr. Welch was unable to comply. A similar invitation came from the University of California through President W. W. Campbell, who wired, "I wish you could be with us on our Commencement Day, May 14, and receive the degree of Doctor of Laws." Professor Charles A. Kofoid, at this University, wrote a description of the celebration at the Kitasato Institute, Tokyo, which he attended.

Dr. Charles W. Dabney, former President of the University of Cincinnati,

sends "grateful acknowledgments of the invaluable aid and counsel given us in Cincinnati."

"You have achieved a notable success, far greater than you know," writes President A. N. Ward, of Western Maryland College. "Your great modesty has kept pace with your great leadership. . . . You have made possible for thousands to suffer so much less pain that . . . if I were Providence I think I should say to the infirmities of age, 'Let Dr. Welch alone!'"

Professor Albert A. Michelson, of the University of Chicago, the Chairman of the Committee on the Celebration, who was unfortunately unable to attend, sent his congratulations both by letter and telegram.

Professor Emeritus Carl Barus, of Brown University, writes, "I want to give myself the great pleasure of adding my voice to the general chorus. I still remember the days of the old Academy where you and I were received at about the same time. . . ." He refers to the National Academy of Sciences, of which Dr. Welch was President during 1913–17.

Dean R. B. Moore, of the School of Science, Purdue University, asked the Committee to convey his congratulations.

Friends at Columbia University not elsewhere mentioned who sent congratulations are: Professor Franz Boas, Professor Marston T. Bogert, and Dr. L. H. Baekeland, who praises Dr. Welch for "a life spent in the noblest efforts directed by a generous heart as well as great scientific knowledge."

Professor George E. Hale, of Mt. Wilson Observatory, wires the Committee his affectionate greetings for Dr. Welch, saying that "the world's debt to him can never be fully repaid." Professor C. C. Thomas, of Pasadena, who taught mechanical engineering at Johns Hopkins in 1913–20, writes: "I cherish the memory of my contact with you . . . and if I were not busy at the California Institute of Technology, as well as in outside engineering work, I should be homesick for the fine associations at Baltimore. Sometimes I am so, even as it is."

William Bowie, Chief of the Division of Geodesy, in the U. S. Coast and

Geodetic Survey, sends his greetings through the Committee. Dr. C. E. Kenneth Mees, Director of Research and Development, Eastman Kodak Company, adds his "tribute to the chorus of congratulation."

"Forty-two chemical alumni at the Atlanta meeting of the American Chemical Society wish to extend you their sincere congratulations . . ." says a telegram which was signed by Professor Neil E. Gordon, of Johns Hopkins, Professor William E. Henderson, of Ohio State University, Professor James F. Norris, of the Massachusetts Institute of Technology, and Professor Lyman C. Newell, of Boston University.

Tributes from other non-medical men at universities come from Professor H. D. Hoover, teaching practical theology at Lutheran Theological Seminary, in Gettysburg, and William W. Bishop, Librarian of the University of Michigan. Professor Chee Loo, of Shantung Christian University, sent his congratulations by radiogram from Tsinan, China.

Dr. J. Mark Baldwin, eminent psychologist and writer, now living in Paris, writes: "I need not—and I couldn't—recount your 'titles' to glory. . . . But keep on being your good and great self and the 90th birthday will surpass the 80th."

The Interests of Women

Leaders in promoting the interests of women gratefully and gracefully pay their tributes to Dr. Welch. Thus Dr. Mary Sherwood, of Baltimore, writing for herself and also for her associate, Dr. Lilian Welsh, of the same city, says: "We feel we may speak for the women physicians of our country in offering you our gratitude for the unfailing fairness and open-mindedness with which you have treated them and their problems from the time of the opening of the Johns Hopkins Medical School; for your contribution to their medical education, to their education in public health, and for your ever notable leadership."

The same tone characterizes a statement issuing from a joint meeting of the

Woman's Medical Society of Maryland and the Woman's Medical Society of the District of Columbia. It is signed by Dr. Maud M. Rees, President of the first-named society, and by two former students of Dr. Welch, Dr. Kate Bogle Karpeles, President, and Dr. Anna S. Abercrombie, Corresponding Secretary, of the latter. "We are justly proud," they write, "that during your busy life the medical woman has had an unbiased judge and a wise counselor." Dr. Josephine Walter, of New York, writes "as one who, since her earliest days in medicine, has looked up to you as a guiding star."

The National Organization for Public Health Nursing, New York, sends a letter signed by the General Director, Miss Katharine Tucker. After conveying the greetings of the officers, directors, members and staff, she adds: "From those of our nurse members who have had the inspiration of your personal friendship and counsel goes a special message of congratulation and pride in your contribution to the profession of nursing. Your loyalty to its cause, your unfailing support of its highest standards have been a source of satisfaction to nurses and of significance to the development of nursing in this country."

Mrs. Drury W. Cooper, President of the Foundation for Positive Health (formerly Women's Foundation for Health), New York, wrote to the Committee, saying that "Among the many organizations and individuals . . . none can be more appreciative of his wise leadership and strong influence in the medical world. . . ."

The Maryland Branch of the National Woman's Party, Baltimore, at its meeting on April 8, voted a tribute which was sent by the Executive Secretary, Miss Florence Elizabeth Kennard. The President of the General Federation of Women's Clubs, Mrs. John F. Sippel, Washington, D. C., writes, "We rejoice today with all those who have been helped in their Public Health programs of work through your help and guidance." A letter of greeting came also from the American Legion Auxiliary, Department of Minnesota, Minneapolis, which was signed by Mrs. A. E. Amundsen, Department President.

From China comes a letter written by Mrs. B. E. Read, in behalf of the Yi Yu Hui, which means "The Club of Productive Friendship," an organization of the wives of the Peiping Union Medical College staff. Mrs. Read sends the greetings of the club and writes of the celebration which the ladies held in honor of Dr. Welch, described elsewhere in this book.

Gratitude for Good Turns

"While the world knows of many things you have accomplished, it does not know of the many helpful acts to individuals which, if acknowledged at this time, would make your mail a burden to read," writes Dr. Frank C. Ard, of St. Jean, Cap Ferrat, France, who studied pathology under Dr. Welch in 1887–88. He thanks him especially for a "kindly act in helping me secure an appointment to the Eye and Ear Infirmary of New York in 1891, which . . . had a vast influence in my life. . . ."

Professor Robert M. Yerkes, of the Institute of Human Relations, Yale University, writes: "It can not harm you to know—and the telling gives me genuine satisfaction—that your advice, recommendations and encouragement proved decisively important in at least two of the most difficult and—as it appears, significant—undertakings of my life. I have in mind psychological examining in the Army of the United States and achieving of provisions for the effective use of anthropoid apes in biological research." Referring to counsel received in many other connections, Professor Yerkes says, "when I realize that in all these respects I am just one among thousands whose lives you have guided, inspired, enriched, I greatly rejoice in your gift, and am humble."

"The Panama position you obtained for me from General Gorgas has led always upward," writes Dr. Arthur Isaac Kendall, of the Northwestern University Medical School, who received his PH.D. in bacteriology at Hopkins in 1904. "You doubtless have forgotten," he continues, "but you had me for dinner the eve of graduation, and the stimulation that came from your heart-

to-heart talk has never been dulled." Gorgas, incidentally, had been a pupil of Welch at Bellevue.

"I have in my archives two letters which you wrote to me, whom you hardly knew," writes Professor Hans Zinsser, of the Harvard University Medical School, "one on . . . the publication of my 'Infection and Resistance,' the other when you offered me an opportunity at Hopkins soon after the war when things were looking pretty blue . . . they made me feel that to have elicited your interest . . . was in itself a reward and the only type of acknowledgment that was really worth having."

"Years ago when I was a student at Johns Hopkins," writes Dr. H. W. Carey, of Troy, New York, "you were of great assistance to Edward Hume and myself in the establishment of the students' book store. . . . The income from this store was sufficient to enable me to . . . finish my medical course."

Dr. Edwin A. Werckmeister, of Wernigerode, Germany, is deeply grateful for personal assistance during the post-war difficulties in Germany. He writes, "Without having been connected with your university—it means without your kindness—I should be lost, like so many of my class. . . . Besides, your letter of recommendation in the year of 1923 opened American houses and hearts to me. . . . Moreover, your recommendation made it possible to ease a little the life of unfortunate spiritual workers. . . ."

Gratitude for professional aid appears in a number of communications. Thus a telegram from St. Louis, signed Edward and Anna Busch Faust, says: "In 1913 at Carlsbad you came as a saviour to our very sick young boy . . . and brought encouragement and comfort to us which has remained a never-to-be-forgotten . . . memory. . . ."

Miss Jean Carter Cochran, of Plainfield, New Jersey, writes, "You have probably forgotten the day when you came to see me in the little Pension at Geneva when you heard I was ill. You came because you knew my brother, Dr. Samuel Cochran, and it was one of the kindest deeds you ever did."

Aid to individuals in their support of altruistic work has often been given by Dr. Welch. For instance, Professor Irving Fisher, of Yale University, tells of "how much honor I have always felt and how much pleasure I have taken in your friendship and support in my own small health endeavors." Edwin J. Farber, of Baltimore, says, "I can never forget your unvarying courtesy and kindness to me, and especially how you assisted me in getting up the World Court Organization for Maryland. . . ."

Others whose congratulations are accompanied by expressions of gratitude for personal assistance include Dr. D. F. Bartlett, of Fayetteville, New York, Robert S. Brookings, of Washington, D. C., a regent of the Smithsonian Institution, who cabled from Italy, and Mrs. Marshall Price, of Towson, Maryland, who speaks of kindness to her husband, Dr. Marshall Price. Frederic W. Allen, of New York, appreciates a call on him while in the Johns Hopkins Hospital, and Mrs. Alden Palmer, of New York, is deeply grateful for Dr. Welch's attention to her father when ill at this Hospital.

The Pride of Kinsmen

Relatives of Dr. Welch are naturally proud of the connection. "How I wish your family, Father Welch and Ed, were here to have the happiness it gives to all of us," writes Mrs. Edward H. Welch, of New Haven, whose husband, also a physician, was a first cousin of Dr. Welch. Mr. and Mrs. William S. Walcott wire their love and congratulations from Daytona Beach, Florida. Mr. Walcott and his brother, Frederic C. Walcott, U. S. Senator from Connecticut, are nephews of Dr. Welch. Their sister, Mrs. Fred Sheffield Kellogg, and her husband cabled their greetings from Aix-les Bains, France. Frederick T. Pierson, of Rochester, New York, after listening in with his wife to the broadcasting of the Washington meeting, writes, "we felt truly proud of having so illustrious a kinsman." William B. Tyler, of Seattle, who has since passed away, wrote, "If my father were here, there would be no one prouder of the general recognition you are so justly receiving. . . ."

Congratulatory messages from other kinsmen include those from Mr. and Mrs. Charles A. Collin, of New York, who attended the Washington meeting, from Mrs. Alice Welch Gates, of Hartford, from Mrs. Elizabeth Torrance, of Norfolk, Connecticut, and from Mr. and Mrs. Robert Pettibone, of Chicago. Communications from other relatives have been mentioned elsewhere in this survey. Mrs. William Copeland Wallace, of Brooklyn, recalls meeting Dr. Welch many years ago at the Naval Academy, having been introduced by his sister, the late Mrs. William Stuart Walcott. She writes, "It is in memory of that friendship—for I was very fond of Mrs. Walcott—that I am sending you my good wishes and congratulations."

More Baltimore Friends

Baltimore friends not named elsewhere in this survey will be grouped below. ". . . here in Baltimore we not only admire you, but we just naturally like you, as well," says Gerald W. Johnson, in a letter. He is the author of the article, "What's in a Name?" in the *Evening News,* referring to "Popsy." Miss Margaret S. Brogden congratulates Dr. Welch and appreciates "having been privileged to know you and be classed among your friends." Speaking for his wife and himself, Captain J. Hugh Henry says, "There may be many who wish you well, but none more sincerely than we two."

Professor Karl F. Hertzfeld, of Johns Hopkins, writes congratulations. Mrs. Warfield T. Longcope, whose husband is a professor at the University, and their daughter Barbara send greetings from London.

Rabbi William Rosenau, who teaches Hebrew at the University, expresses the wish that Dr. Welch may be spared "in life and health for many years to come," in order that he "may continue to prove an inspiration not merely to the medical profession but to the men and women of every calling of our social organism."

Other friends in Baltimore who sent congratulatory messages are: Victor G. Bloede, Miss Marion Buckler, Dr. Thomas Buckler, cabling from Paris,

Seymour Mandelbaum, Miss Helen Stirling, Miss Isabel Welch, Milton F. Westheimer, and John Sterett Gittings, now Second Secretary of the U. S. Legation to Finland, who writes from Helsingfors.

Clubs at Home

Several Baltimore clubs not primarily interested in medicine send their greetings. F. Highlands Burns, President of the Baltimore Club, congratulates Dr. Welch in behalf of the members. The Civitan Club of Baltimore extends hearty congratulations. Professor John C. French, of the Johns Hopkins University, sends greetings in behalf of the Tudor and Stuart Club, at the University. Albert H. Buck, Secretary of the University Club, of Baltimore, of which Welch has been President for fifteen years, unable to attend the reception at The Alcazar, which the Club gave for Dr. Welch, writes the next day, "I feel that it has been a very great privilege to have known you and I am conscious of having been the beneficiary of such genuine kindness and thought. . . ."

Contacts of Travel

Glimpses of Dr. Welch far away from home come to us time and again as we glance through the collection of congratulatory messages. Contacts of travel not already alluded to will be indicated here.

President W. A. Winter, of the Royal College of Physicians of Ireland, writes from Dublin: "When I recall a very pleasant conversation I had with you in the Lounge of the Victoria Hotel, after returning from the Guildhall Dinner in connection with the Harvey Celebration, I feel that I would like to add my personal congratulations . . . to the more formal ones already sent by my College." This incident took place in 1928, when Dr. Welch attended the Harvey Tercentenary Celebration as the representative of all American medical institutions.

Dr. Harry Plotz, of the Pasteur Institute, Paris, is reminded of "the Pasteur

Celebration, when you came to represent the United States. I recall what you said regarding Pasteur: 'He is loved not only for his work, but because he was so human.' You, too, are in the hearts of all those who know you, because you are so understanding and so human." The Pasteur Celebration was in 1922.

Mrs. Washington E. Fischel, of St. Louis, whose husband, Dr. Fischel, was an old friend of Dr. Welch, recalls many associations, including a "meeting in 1905 at Ostend and the pleasure we enjoyed." Miss Jennie Erskine Murray, of New York, recalls with pleasure "that train ride across the island of Sicily from Palermo to Girgenti," in 1920.

Mr. and Mrs. Henry Ely, of Cedar Rapids, Iowa, recall their delight at having found their steamer chairs next to that of Dr. Welch on the S. S. Orbita in 1924. "Ever since our own student days," writes Mrs. Ely, "when many of our friends were your pupils your name has meant wonder to us. . . ." Miss Rene Trust, of Baltimore, a fellow-passenger on the S. S. Belgenland in 1928, recalls the voyage in her letter of congratulations.

Dr. Park Weed Willis, of Seattle, remembers his pleasure in showing Snoqualmie Falls and some of the other "beauties of this country" to Dr. Welch.

"I am recalling with pleasure the delightful days we passed together in the Philippines—each day crowded with new interesting experiences," writes Theodore Francis Green, lawyer, of Providence, Rhode Island, who traveled with Dr. Welch in 1921. "Your energy and intelligent curiosity were inexhaustible then and I am glad to know are still unexhausted."

Dr. B. Suyenaga, of Nagasaki Ken, Japan, sends congratulations and says, "You might remember me as one who . . . took the same steamship with you to the U. S. A. from Japan at the end of 1915." Dr. Richard A. Bolt, Director of the Cleveland Child Health Association, renews his "pledge of affectionate esteem . . . for the personal inspiration you have been to me ever since I first met you in China." This was in 1915 when Dr. Welch visited China as a member of the Rockefeller Commission. The itinerary included a visit to

Tsing Hua College, of which Dr. Bolt was then Medical Director. A photograph of the party taken at that time accompanied Dr. Bolt's letter of congratulation.

The Washington Meeting

Impressions of the meeting in Washington were written immediately afterwards by many of those who attended. Daniel Willard, of Baltimore, Chairman of the Board of Trustees of the Johns Hopkins University, who was present in the company of President Joseph S. Ames, says, "We agreed that your remarks were most happily chosen, and that the whole occasion was perfect in all its details." Although it is not strange, he remarks, that a man like Dr. Welch should be honored in his own community, "it is rare that even such a man is honored as you were today in the capital of the nation."

Governor Albert C. Ritchie, of Maryland, considers it a "genuine privilege" to have attended the meeting and says, "Nothing has ever given me more downright satisfaction." George E. MacLean, of Washington, D. C., says that the event took his mind back to the celebration of the eightieth birthday of a distinguished statesman in Europe, at which a prince presided, "but with the comparison in your favor."

Colonel F. H. Garrison, Medical Corps, U. S. Army, Retired, then stationed in Washington, D. C., now Librarian of the William H. Welch Medical Library, wrote, "I want to congratulate you on the unique ceremonials of yesterday which of course could not be duplicated in the annals of medicine." A similar sentiment was expressed by Colonel P. M. Ashburn, Medical Corps, U. S. Army, stationed in Washington, D. C. Dr. Walter R. Steiner, who came from Hartford, Connecticut, writes, "Every one was thrilled by the dignity of the Washington meeting and the character of the speeches."

Others expressing delight at having been present were Dr. Edgar B. Friedenwald, of Baltimore, Professor John C. Hemmeter, of the University of Maryland, Dr. M. J. Rosenau, of Harvard University Medical School, and Dr.

Howard T. Karsner, of Western Reserve University. Dr. Frankwood E. Williams, Medical Director of The National Committee for Mental Hygiene, writing about the event, says, "before I take up my regular work again I want to tell you what a deep impression it made upon me. It will long remain in my mind as a perfect meeting." Clifford W. Beers, Secretary of this Committee, writes, "It was perfect in purpose, detail, and scope."

On the Air

Both strangers and friends who had listened to the Washington speeches over the radio wrote to Dr. Welch of their enjoyment of this wide extension of the celebration. Dr. G. Alder Blumer, of Providence, comments on his old friend's "strong, vibrant and resonant voice in perfect transmission," and adds, "I have no doubt I heard you more distinctly than if I had been actually present at the speech-making. From beginning to end the commemoration was conducted with a matchless dignity, eloquence and grace worthy of the great occasion."

Dr. Walter C. Burket, of Evanston, Illinois, says, "Your voice sounded very natural over the air. I could visualize you speaking in your usual lucid and charming manner." Dr. L. E. Smith, of Jackson, Kentucky, writes that he "was thrilled to be present, even though 800 miles away . . . and when you came on the platform you were as real to me as if you had been sitting in your chair in the lecture room."

Professor Arthur D. Hirschfelder, of the University of Minnesota Medical School, says, "It was a great joy to all of us Hopkins men in Minnesota . . . and particularly when your voice came to us so clearly, as though you were speaking to each individually." Dr. Thomas W. Hastings, of Kinderhook, New York, says, "It was extremely gratifying to thousands of your former students to hear over the radio . . . the graceful tributes." Miss Katherine M. Wolfe, of Fremont, Ohio, says, "It was magnificent in tribute, in truth, and in placing the hero honored."

William Welch Flexner, son of Dr. Simon Flexner, heard over the radio at Princeton the speeches of his father and the others on the Washington program. He telegraphed his greetings to Dr. Welch, saying, ". . . how proud I am to be your namesake." Miss Margaret H. Pettibone, of Santa Monica, California, writes, "All the distinguished voices came through very clearly to us on the western coast."

Sir Humphrey Rolleston, of Cambridge, England, wished Dr. Welch "very many happy returns of your birthday of which the air has today been full." A telegram from Dr. Charles D. Parfitt, tells of his great pleasure in hearing the program in Gravenhurst, Ontario, Canada.

Others who appreciated the privilege of hearing the program by radio are: Mrs. William Healy Dall, of Brookline, Massachusetts; Mrs. Emma James Johnson, of Baltimore; Mrs. Joseph J. Krieg, Jr., of Lima, Ohio; Dr. H. F. Loesch, of Philadelphia; Professor Dayton C. Miller, of Cleveland, and W. Irving Walker, of Chestertown, Maryland.

More Tributes from the Eminent

Men and women prominent in fields outside the scientific and academic world, as we have already seen, paid their tributes to Dr. Welch. Following are some not previously indicated, beginning with his fellow townsmen.

The Honorable John Work Garrett, of Baltimore, American Ambassador to Italy, cabled greetings from Rome for himself and his family. Archbishop Michael J. Curley, of Baltimore, writes to the Committee, "All Baltimoreans are profoundly proud of the splendid service rendered to humanity by the eminent Dr. Welch." The Honorable William Cabell Bruce, also a fellow townsman of Welch, writes to him, "Few persons, I imagine, admire your great abilities and personal virtues more highly than I do. . . ." The Honorable J. Charles Linthicum, Member of Congress from Maryland, and Mrs. Linthicum, presented tokens of friendship and admiration. The Honorable Howard W. Jackson, former Mayor of Baltimore, sends his congratulations

and best wishes. Judge Walter I. Dawkins, of the Supreme Bench of Baltimore City, writes, ". . . your life has been such a splendid performance of all sorts of most important duties . . . it is so appealing to me individually that I want to offer you this very personal congratulation. . . ." Henry G. Hilken, German Consul in Baltimore, sends his hearty congratulations.

"The entire staff of the Pan American Union joins with me in extending to you most hearty congratulations," writes the Director General, L. S. Rowe, "and to express the hope that you will be spared for many years of continued service to our country and to humanity." John Hays Hammond, of Washington, D. C., cabled from Madrid, "My wife and I send hearty congratulations, affectionate regards, and high esteem."

The Honorable Dwight W. Morrow, former American Ambassador to Mexico, cabled his congratulations and warmest regards from London. Edward S. Harkness wires congratulations as "one of your great admirers" and sends "every wish that you may continue for many years your splendid work for humanity." Franklin B. Kirkbride, of New York, writes to the Committee, "I have the greatest admiration for Dr. Welch . . . Do convey my congratulations and best wishes . . ." Clarence H. Mackay wires to Dr. Welch, "Among your countless friends and admirers there is no one who appreciates more than I do your wonderful and unfailing devotion to the public welfare." Howard Mansfield, of New York, congratulates Dr. Welch "on the heights you have reached in age, achievements, and honors. . . ." Mrs. Simon Flexner, of New York, sent personal congratulations, as did Mrs. Henry Fairfield Osborn, recently deceased, also of New York.

"He lives longest who serves greatest," telegraphs William T. Dewart, President of the *Sun,* New York. "Based upon this truism your life and influence should extend indefinitely in its effects upon your profession and upon the world at large. . . ." Another publisher, Albert Shaw, of the *Review of Reviews,* asks the Committee to convey to Dr. Welch his heartiest greetings. The Honorable John J. Cornwell, former Governor of West Virginia, clipped

the *New York Times* editorial on April 8, and sent it to Dr. Welch, saying, "Of all the tributes that will be paid to you today, I think none will be more fitting and complete than this one."

The Honorable Ross A. Collins, Member of Congress from Mississippi, writes, "May you have many more years to serve humanity as you have in the past and to enjoy the fruits of such distinguished and useful service." Birthday greetings were telegraphed by the Honorable Frank Robinson, Mayor of Elmira, New York.

George Foster Peabody, of Saratoga Springs, New York, wires "congratulations to our country and to your great profession for what you have done and that you are still with us." Mr. and Mrs. Martin Ryerson, of Chicago, convey their "tribute of esteem and affection called forth, not only by our appreciation of your great scientific career, but also by a personal acquaintance which has been to us a source of pleasure and pride." Washington Flexner, also of Chicago, wires his "congratulations and best good wishes." Miles M. Dawson, of New York and Winter Park, Florida, wishes for Dr. Welch "an old age which will ever look forward to an eternity of such a life."

The Younger Generation

Into the far future will be carried memories of Dr. Welch by those who are youngsters today. Ferdinand E. Chatard IV, son of Dr. J. A. Chatard, of Baltimore, is obviously affected. He writes, "I want to wish you hearty congratulations from a fourth generation student, hoping to be a fifth generation doctor." Louis Kraus, Jr., of Baltimore, "a school-boy, sixteen years old," sent congratulations and requested an autograph. He got it. Dora H. Gray, whose address does not appear, inscribes a picture card, "May a small person like me send a great person like you a birthday greeting." A tiny admirer, of Baltimore, wrote a message on a greeting card and then went over it to correct the spelling. It reads, "Dear Dr. Welch, I am a little girl you gave your autograph to and I wish you a happy birthday. Lovingly, Nancy Bacon."

APPENDIX I

List of Books and the Friends Who Gave Them to Dr. Welch On the Occasion of His Eightieth Birthday

VAN ALMELOVEEN, THEODOR JANSSON. *Inventa nov-antiqua, id est brevis enarratio ortus et progressus artis medicae; ac praecipue de inventis vulgo novis . . . in ea repertis. Subjicitur ejusdem Rerum Inventarum Onomasticon.* Amsterdam, apud Janssonio-Waesbergios, 1684.

Presented by Dr. Harry Friedenwald, Baltimore.

ASELLI, GASPAR. *De lactibus, sive lacteis venis.* Apud Jo. Baptistam Bidellium, 1627.

Presented by Dr. Archibald Malloch, New York.

BACON, FRANCIS. *Of the Advancement and Proficience of Learning; or, the Partition of Sciences IX Bookes . . . Interpreted by G. Wats.* Oxford, printed by Leon. Lichfield for Rob. Young & Ed. Forest, 1640.

Presented by the Council and Fellows of the New York Academy of Medicine.

CARTER, LAURA ARMISTEAD. *Wind and Blue Water.* Boston, Mass., The Cornhill Co., [1920].

Presented by the author.

CHALMERS, A. K. *The Health of Glasgow,* 1818–1925. Glasgow, Bell and Bain, Ltd., 1930.

Presented by the author.

CRAMER, W. *Fever, Heat Regulation, Climate, and the Thyroid-Adrenal Apparatus.* London, Longmans, Green and Co., Ltd., 1928.

Presented by the author.

CUREAU DE LA CHAMBRE, MARIN. *The Art how to Know Men . . . Translated by John Davies, of Kidwelly.* London, printed by T. R. for Thomas Dring, 1665.

Presented by the Council and Fellows of the New York Academy of Medicine.

Dunham, Edward K. *Empyema* . . . Washington, Government Printing Office, 1924.

Presented by Mrs. Edward K. Dunham.

Hippocrates. *Hippocrates upon Air, Water, and Situation; upon Epidemical Diseases; and upon Prognostick . . . To this is added . . . Thucydides's Account of the Plague of Athens. Translated and . . . illustrated with notes by Francis Clifton, M.D.* London, printed for J. Watts, 1734.

Presented by Dr. C. N. B. Camac, New York.

Kober, George Martin. *Reminiscences of George Martin Kober, M.D., LL.D.* Menasha, Wisconsin, George Banta Publishing Company, 1930.

Presented by Dr. Kober and the Kober Foundation of Georgetown University, Washington, D. C.

Metherie, M. de la, M.D. *Essai Analytique sur l'Air Pur, et les Différentes Espèces d'Air.* Paris, 1785. Avec Approbation et Privilège du Roi.

Presented by Dr. Iago Galdston, New York.

Motherby, George. *A New Medical Dictionary or General Repository of Physic . . . The Third Edition . . . with . . .* Additions by George Wallis. London, printed for J. Johnson, G. G. J. and J. Robinson, A. Hamilton, Jun. and J. Murray, 1791.

Presented by Dr. Julius Friedenwald, Baltimore.

Nicander. *Νικανδρου Θηριακα Nicandri Theriaca et Alexipharmaca. J. Gorrhaeus Latinis versibus reddidit Italicis vero, qui nunc primum in lucem prodeunt, A. M. Salvinius. Accedunt variantes codicum lectiones, selectae adnotationes et Graeca Eutecni Sophistae Metaphrasis; . . . descripta ac nondum edita curante A. M. Bandinio.* Florentiae, ex officina Mövckiana, 1794.

Presented by Leonard L. Mackall, Savannah.

Zimmerman, Johann Georg von. *Solitude or the Effect of occasional Retirement on the Mind, the Heart . . . : written originally in German . . .* [Translated from the French of J. B. Mercier.] London, printed by Thomas Maiden for Vernor and Hood, 1804–5.

Presented by Dr. Arnold C. Klebs, Nyon, Switzerland, and Col. F. H. Garrison, U. S. Army, Retired, Baltimore.

APPENDIX II

Original Documents and Press Clippings to be Preserved

SPECIAL measures have been taken to preserve the original greetings addressed to Dr. Welch on the occasion of his eightieth birthday. The engrossed tributes which came from institutions in foreign countries and are reproduced in this book have been mounted in a specially designed volume, bound in full levant. The letters and telegrams, numbering about five hundred, with about six hundred signers, quoted in this book, have also been mounted in a specially designed volume, which is bound in cloth and levant.

The records of the Celebration have been further augmented by a collection of more than three thousand clippings from about one thousand seven hundred and fifty newspapers and periodicals which reported and commented on the event. These clippings are preserved in a scrap-book specially designed for the purpose.

The three volumes described above were prepared for presentation to Dr. Welch under the auspices of the Committee in charge of the Celebration, this work being done both as a courtesy to Dr. Welch and for the convenience of his friends and followers who will desire to examine these new Welchiana.

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